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Introduction

This report is the final product of a two-years research project funded by the European Commission, DG Sanco (Grant agreement 17.020100/05(04)408149) on the protection of energy consumers.

More specifically, the Commission asked to:

- List the competencies of National Regulatory Authorities regarding issues related to consumption in a general sense; make a comparison among Member States (are consumers considered homogeneously by NRAs? Have consumer associations a specific role?);
- Evaluate and compare quality and added value of the NRAs' intervention to the benefit of consumers; collect concrete/practical examples; identify good practices as well as shortcomings;
- Clearly illustrate useful recommendations, in order to have the NRAs consider consumers issues thoroughly.

To accomplish these objectives, we proceeded as follows:

- a) Firstly, we collected national laws and regulations implementing the first and second electricity and gas directives;
- b) Secondly, we sent a questionnaire to each of the nine partners in this project and asked them to describe the main characteristics of their national energy systems, with a special emphasis on the measures aimed at protecting residential electricity and gas consumers in the new environment created by the liberalization process;
- c) Thirdly, we used the information collected to evaluate the effects of the liberalization process on the welfare of residential consumers and to advance some recommendations.

The research project was conducted between July 2005 and June 2007.

The first phase of the project was devoted to data collection. Three main channels were used: the first was a six-parts questionnaire with 42 questions on the most important aspects of regulation of retail energy markets. It was sent to partner consumer associations in October 2005 and returned by most of them in the Spring of the following year. The text of the questionnaire is reproduced in Annex A, while the

partners' answers are available on the website of the project, also activated in the first phase (www.energyandconsumers.net). The second channel for data collection was information contained in the official publications of international, European and national institutions, as well as in academic studies on retail energy markets. The third channel was information on energy consumers' complaints requested to the regulators of partner countries.

In the second phase of the project a methodology for interpreting the data collected was developed. Building on the insights of Law and Economics, Comparative Law and the Economics of Regulation, we tried to identify the main issues in the transition from monopoly to competition in residential markets. The solutions experimented in national regulatory systems were subsequently evaluated according to such theoretical framework. An interim report with preliminary results was discussed with the partners in the meeting held at Bolzano, Italy in September 2006.

In the third phase of the project the data on residential energy markets were further updated and the observations received by the partners were included in the Final Report. Whenever possible, we tried to make all information accurate as of July 1st, 2007. In this last phase the partners also conducted interviews with national regulators to collect additional information on the problems of retail markets and to get their impressions on the accuracy of the report. The transcripts of the interviews are available on the website of the project. The research team presented the Final Report to the European Commission in Brussels in May 2007.

A special thanks to prof. Giuseppe Bellantuono, Department of Legal Sciences, University of Trento, who was in charge of the methodological and legal analysis and to dr. Federico Boffa, School of Economics and Management, Free University of Bozen-Bolzano, who was in charge of the collection of data and the econometric models, for their precious help and their accurate research. Federico Boffa wrote chapter six, while Giuseppe Bellantuono wrote the remaining part of the report.

Executive summary

The object of this report is the regulation of residential electricity and gas markets according to the rules laid down in the second electricity and gas directives. 1st July 2007, the date by which all European consumers must be free to choose their supplier, is a watershed for the European energy market, but nobody could believe it is the ending point of the liberalization process. Much work remains to be done before something resembling competition shows up in energy markets. The research presented here tries to assess whether Member States were able to design a legal and economic framework that fosters the twin goals of efficiency and protection of domestic consumers.

We now describe in brief the contents of each chapter. Then we summarize the main findings of the project.

Contents of the chapters

The first chapter describes the methodology employed to analyse residential energy markets. It highlights the incentive structure of legal rules and the need to assess the relevance of regulatory institutions according to the legal tradition of each country.

The second chapter describes the main problems regulators shall tackle in residential energy markets. While they are not exclusive to such markets, it is suggested that they could be more difficult to solve than in other settings.

The third chapter lists the national energy laws and regulations implementing the second electricity and gas directives in the 27 Member States.

The fourth chapter describes the experiences of those countries that liberalized residential energy markets earlier than the European deadline. Problems encountered and solutions experimented could be very interesting for all countries that open their residential markets by 1st July 2007.

The fifth chapter describes the regulatory systems in partner countries, with specific reference to the institutions of consumers representation and the distribution of regulatory powers.

The sixth chapter discusses the evolution of retail energy prices in partner countries since the beginning of liberalization and its distributive impact on different categories of consumers.

The seventh chapter describes the main terms of residential energy contracts and the type of control on their contents.

The eighth chapter describes quality regulation, with special emphasis on its impact on consumers' welfare.

The ninth chapter describes energy consumers' complaints and alternative dispute resolution procedures

The tenth chapter describes the role of consumers associations in energy markets.

The eleventh chapter contains final recommendations addressed to the European Commission, to ERGEG and to national regulators.

The methodology of Comparative Law and Economics

The project emphasizes two methodological premises: the relationship between Law and Economics on one hand; the need to adopt a comparative approach to the analysis of national regulatory frameworks on the other.

Law and Economics is one of the most successful interdisciplinary approaches to the study of markets and institutions. In the last forty years it has been developing a consequentialist approach to legal rules. Its main insight is that rules have incentive effects and can be employed to alter people's behaviour. To discover the structure of incentives built in each rule or system of rules, the most important tool is a theory of behaviour, which Law and Economics borrows from economic analysis. While microeconomics studies how consumers and firms react to prices, Law and Economics studies how legal rules fix the 'price' for their addressees. Analogizing markets to institutional contexts, it is possible to make predictions on the likely impact of different legal rules.

Focusing on incentives provided for by legal rules helps to avoid the mistake of believing that liberalization will automatically increase total welfare. Instead, markets are artificial phenomena shaped by the rules that govern them. Therefore, it is of paramount importance to get incentives right.

The need for a comparative approach is prompted by the observation that in Europe coexist many different legal traditions. Although it is the aim of the European directives to harmonize the regulatory framework in the Internal Energy Market, it should be recognized that complete uniformity is very difficult to attain and, probably, not desirable at all. We shall see that the countries represented in our project display considerable variation in the institutional solutions they chose on such topics as protection of vulnerable consumers, regulation of contracts and dispute resolution procedures. What we should try to do is to assess the efficiency and efficaciousness of each different answer to the same problem. The starting point, however, is that there are many ways to do the same thing.

The problems of retail energy markets

The report is organized around four problems. Before commenting on each of them, it is useful to make some preliminary observations on the relationship between competition and consumer protection. While competitive markets are usually the best means to increase consumers' welfare, we cannot exclude that sometimes fostering competition and increasing consumers' welfare go in opposite directions. For example, increasing the number of suppliers adds to the complexity of consumers' choices. They now face costs that would not exist but for the opening of residential markets to competition. Because of such costs (and the cognitive problems to be discussed in a moment), we cannot be sure that an higher number of suppliers warrants lower prices and better quality. Therefore, consumers need help by regulators and consumer associations to make better choices and reap the fruits of liberalization.

Now suppose that liberalization policies succeed in creating reasonably competitive markets. Should we conclude that we can forgo the regulation of residential consumers' contracts ? The answer is no. The problems discussed below do not disappear even in competitive markets. Therefore, the question is not whether we need consumer protection measures, but what kind of measures are better able to protect consumers without hampering competition.

We turn now to a brief discussion of the main problems of retail energy markets. It is clear that competition means enhanced ability to make choices. Unfortunately, the

choices residential consumers make are often quite poor. They do not have enough information to locate the supplier who offers cheaper prices and better quality. Moreover, they try to economize on their cognitive efforts by means of simplified decision-making processes called heuristics. These mental shortcuts allow people to make choices without considering all information that would be needed to make the optimal choice. They intentionally eschew a large part of such information and focus on those cues which can guide them in the appropriate direction. This type of behaviour is what the economic literature calls bounded rationality.

Many consequences follow from these observations. Residential consumers will face search costs when trying to assess whether alternative suppliers are available. Moreover, they will incur switching costs, sometimes due to the psychological cost to leave a long-time supplier, sometimes artificially created by firms in subtle and difficult to detect ways. If search and switching costs are high, consumers will pay more and competition will be reduced.

Another consequence of asymmetric information and bounded rationality is the presence of unfair terms in the standard contracts drafted by energy firms. They have every incentive to exploit consumers' lack of information and bounded rationality by hiding onerous terms and making more difficult to appraise their cost. By so doing they earn supra-competitive profits that would not be possible had all consumers been able to read and understand contracts.

There is also a direct link between contracting strategies and the competitive structure of markets. Firms can use complex standard forms not only because they want to exploit consumers' bounded rationality, but also because such standard forms make it easier to raise prices. If consumers find it difficult to compare offers, each supplier can use harsh terms or rise his prices without fearing the loss of too many customers. As a result, we could have supra-competitive prices even absent collusion. Moreover, complexity of contracts can also serve as a barrier to entry of new firms into the market. Consumers will find it difficult to understand that the new entrant is offering a better deal. Therefore, less consumers will switch and entry will be less profitable.

Asymmetric information is also relevant for the regulation of quality of supply. In this case, neither consumers nor the regulators have enough information to choose the optimal level of quality. Therefore, it is crucial to set incentive systems and mandatory

refunds that prevent energy firms from economizing too much on quality. This is probably one of the fields in which the differences among the partner countries are more striking.

Finally, the design of energy markets should be completed with suitable dispute resolution procedures. From a Law and Economics perspective, alternative dispute resolution mechanisms can be conceived of as cost-avoiding solutions for small claims litigation. However, a number of institutional choices have to be made if they are to work effectively. First of all, it should be decided if energy consumers are better represented by the sectoral regulator, by an independent but specialized body, by a generalist consumer body or by self-regulatory industry ombudsman schemes. Pros and cons can be detected for all available options. Many of the above mentioned designs are employed in the partner countries. The most difficult task, however, is to assess their effectiveness.

The level of competition in retail energy markets

The description of the experiences of some pioneer countries shows that, when retail markets were opened to residential consumers, the needed institutional infrastructure was not put in place. With the exception of the Flemish region, the low levels of active participation on the demand side and the high levels of concentration on the supply side can be traced back to the lack of regulatory measures that reduce search costs, switching costs and entry barriers.

As far as search and switching costs are concerned, relying on general consumer law does not seem to be a fruitful strategy. Numerous factors foster consumers' inertia. Therefore, their active participation depends on more specific measures aimed at reducing the cognitive efforts they must face in the new competitive scenario. Moreover, we noted in chapter one that energy companies are interested in raising search costs and making it difficult for consumers to compare alternative offers. ERGEG best practice propositions and Eurelectric Guidelines for Customer Switching are first steps toward the harmonisation of the different systems adopted in Member Countries. However, it is submitted that more attention should be paid to the heuristics residential consumers employ when comparing alternative offers. From this point of

view, the way information is communicated by firms and regulators, as well as the contractual terms concerning the beginning and the end of the commercial relationship with the supplier, carry more weight than is generally supposed.

Entry barriers are the other side of the coin. Economics literature is increasingly supporting legal unbundling of distribution and retailing as the only measure able to stop cross-subsidies and difficult to detect strategic behaviour against new entrants. Besides structural measures, it is clear that successful retail markets presuppose efficient solutions for information exchange and switching procedures. Timing, too, is of fundamental importance. It is useless to anticipate opening if the institutional infrastructure is not ready to work.

The regulatory systems in partner countries

This chapter addresses two issues: firstly, how roles and competencies in the field of energy consumers protection are distributed among public and private institutions; secondly, which regulatory powers such institutions can use to discharge their duties.

Energy laws of all partner countries include consumers protection among the objectives of the regulatory framework. However, significant differences can be detected in the institutional solutions aimed at its implementation. Partner countries employed four models of consumers representation:

- 1) The powers are shared among NRAs and Government authorities
- 2) All the powers are attributed to the NRA
- 3) Some or all the powers are attributed to a specialized consumer body
- 4) Some or all the powers are attributed to a general consumer body

To assess advantages and shortcomings of each solution we need a more detailed description of the powers granted to the various institutions. For expositional clarity we distinguish four categories of regulatory powers:

- a) advisory powers: the institution can only make proposals to other authorities

- b) rule-making power: the institution can independently enact binding rules for energy firms
- c) enforcement powers: the institution can independently detect violations and decide the appropriate injunctive or punitive measures (usually subject to judicial review)
- d) dispute resolution powers: the institution can settle disputes between energy firms or between energy firms and their customers

Only in Belgium, Bulgaria and Greece sector regulators can exercise advisory powers, while formal rule-making powers were given to the competent Ministry. However, in Bulgaria it is suggested that the political authority usually accepts without significant modifications the proposals submitted by SEWRC. Because of the technical knowledge required to intervene in energy markets, we can safely assume that in other countries too the final decisions of the political authorities attach great weight to the opinions of the sector regulators.

The fact that in most partner countries NRAs and governmental authorities share rule-making powers leaves space to at least two interpretations. On one hand, it could be suggested that the direct involvement of political institutions warrants careful consideration of consumers' interests. On the other hand, it is equally plausible that governmental authorities give precedence to other interests, for example the maximization of the profits of energy firms under the control of the State.

The uncertainty on the consequences of direct governmental interventions in energy markets suggests that more attention should be devoted to an institutional solution adopted in a few partner countries, that is the appointment of an independent body charged with the exclusive task of representing consumers' interests. Its main advantage is the enhanced probability that energy regulation will be more favourable to consumers.

As we mentioned in chapter one, this solution too suffers of its own shortcomings. A consumer body would need access to relevant information, strong technical competencies and adequate resources. Moreover, means of coordinating its activities with those of NRA and other institutions should be provided. There is also a serious

danger that the consumer body employs its powers to oppose competition and forestall any reform proposals.

So far, available evidence does not permit to establish the superiority of one institutional solution over anyone else. There are trade-offs involved that require careful consideration of the national legal and economic environment. What can be said beyond any doubt is that an excessive fragmentation of competencies among many authorities is a source of unnecessary costs. It enhances the probability of conflicts and raises the complexities of the regulatory process. Above all, the fragmentation of competencies increases information costs for consumers, who must search for the competent authority to address in case of complaints against suppliers. Moreover, it increases the risk of inadequate funding. From this point of view, there seems to be room for improvement in the Finnish, Greek and Lithuanian regulatory frameworks.

Econometric analysis of residential markets regulation

Energy markets data in partner countries are used to identify, through the deployment of econometric and statistical techniques, the effects of relevant variables on the outcome of the liberalization process, and namely on prices.

Liberalization is a recent phenomenon, *a fortiori* in the subset of partner countries. This may make inference from available data weak. In spite of that, some quantitative assessments emerge quite clearly.

First, liberalization has generated advantages for the categories of customers that have been affected by it. Residential customers have indeed been advantaged by the full retail market opening, where this has already been implemented.

Second, residential customers are particularly disadvantaged when the market is open only for industrial customers. In this case, while industrial customers enjoy the benefits of liberalization, residential customers are worse off than without any opening. In other words, opening only the market for industrial customers fosters a transfer from residential to industrial customers.

Third, concentration or State ownership in the upstream market reduces, according to our sample, the effectiveness of the liberalization process.

Fourth, the characteristics of the retail energy markets, in terms of both market structure (number of retailers and their concentration), and market design (in particular, rules on switching costs and on barriers to entry) are a significant determinant of the outcome. The presence of many players with a low degree of concentration entails lower prices. The same happens with low switching costs and barriers to entry.

Energy consumers' contracts

Most partner countries supplement general contract and consumer law with more specific protective measures. Of course, such measures can partly be explained by the lack of competition in those countries that did not complete the liberalization of residential markets. However, we can also uncover additional reasons why general contract and consumer law risks being inadequate to protect energy consumers. Its rules usually employ vague formulas aimed at catching many different unfair practices. Therefore, they leave to the judge the task to interpret their meaning *ex post*. Such a control strategy inevitably produces a state of uncertainty until enough cases are litigated and dominant interpretations become settled. It is suggested that newly born residential energy markets can not tolerate any uncertainty as to the fairness of the most important contractual terms.

The inquiry in the CLAB database highlights an additional problem. Differences in the interpretation of unfair terms statutes by national courts lead to diverging assessments of the most common terms in energy contracts. It cannot be excluded that such differences hamper the development of competition on a continental level. A European standard contract could be the answer, but its drafting is far from easy.

Another and more fundamental reason for regulatory interventions on contract terms is the difference between protecting consumers and fostering competition. While the two objectives frequently overlap, it is by no means clear that it is always so. Take, for example, consumers' termination rights in energy supply contracts. Allowing the consumer to exit from the contract at any moment frees her from the constraints of unfair terms, but could hamper those suppliers who would like to offer fixed term, fixed price contracts. Because of the possible conflict between competition and consumer protection, it would be preferable to give NRAs the power to regulate *ex-ante* the most

important terms. Relying exclusively on the ex-post assessment of generalist courts without a detailed knowledge of energy markets could result in less balanced outcomes.

A more focused analysis was conducted with regard to three important types of contract terms:

- a) termination of contract by the consumer
- b) termination of contract by the supplier
- c) modification of contract terms

As far as consumers' termination rights are concerned, behavioral biases, search and switching costs all push in the direction of too much inertia. At least in the first period after complete opening of the residential markets it would be preferable to forbid any constraint on termination. There is no reason to suppose that, because of such measure, suppliers will not be able to tailor their offers to customers' preferences. No one will terminate a long term contract that shields from price volatility, provided it does not deviate too much from wholesale prices. Of course, suppliers will bear some additional market risk, but they are in the best position to cover against it through financial instruments.

Disconnections procedures are strongly intertwined with the presence of a supplier of last resort and with measures aimed at protecting vulnerable customers. While forbidding disconnection would impose too much risk on suppliers, it would be useful to draw some guidelines as to the procedure to be followed for those consumers who cannot afford to pay their bills. Useful examples are the guidelines for preventing debt and disconnection published by Ofgem in January 2003 and the industry-wide safety net procedure for vulnerable consumers developed by the British Energy Retail association in 2004.

Finally, unilateral modifications could be uniformly regulated across Europe. The main points of such regulation are the cases in which modification should be allowed and the timing and contents of the communication sent to the customer.

Quality of supply

This chapter discusses the regulation of continuity of supply and commercial quality in partner countries. We first describe the main characteristics of quality regulation in each country, then try to assess its impact on consumers' welfare. Finally, we describe the measure and type of compensation paid to energy consumers when quality standards are not met.

Our research highlights the many differences among the partner countries in the field of quality regulation. While most of them have been introducing new regulations in the last few years, their contents, extent and effectiveness are far from uniform. Moreover, only a few countries provide adequate compensation to consumers in case of blackouts.

The reference to the right of household customers to enjoy the supply of electricity of specified quality at reasonable prices, inserted in art. 3 second electricity directive, is too vague to be of much help in building a regulatory system for quality of supply. Both CEER and ERGEG are trying to foster awareness of best practices in the European context and to suggest the course of action that promises to improve the performance of energy companies as quickly as possible. Tough, we argue that various kinds of official initiatives at European Union level could ease the convergence toward common models. Our proposals are threefold:

- a) insert quality regulation among the powers to be attributed to each NRA
- b) provide that continuity of supply be fostered through incentive systems
- c) provide for mandatory automatic refunds to consumers in case of quality failures.

Energy consumers' complaints and dispute resolution procedures

This chapter discusses the procedures that partner countries adopted for resolving disputes between energy companies and residential customers. According to Annex A second electricity and gas directives these procedures should be transparent, simple and not burdensome. They should provide fair and fast resolutions of the disputes and

mechanisms of redress for consumers. Their structure should reflect the principles laid down in the Commission recommendation 257/98/CE.

This survey shows that various problems must be solved to enhance the effectiveness of dispute resolution procedures in the energy markets. While in most cases NRAs are able to exert pressure on the firms to settle the controversy, there isn't any proof that residential consumers are adequately informed about these procedures. Moreover, the experiences of Finland and Lithuania, that rely on general consumer body without direct knowledge of energy markets, advise against this solution.

The role of consumer associations

This chapter discusses the role of consumer associations and the opportunities for direct participation of consumers to regulatory proceedings in partner countries. Existing evidence attests both to the benefits and the hurdles of consumers' participation and representation in the energy sector. On the benefits side, enhanced involvement of consumers in regulatory decisions could increase their quality, reduce conflicts among the different categories of energy users, strengthen the democratic legitimacy of the choices made by appointed experts, reduce the influence of business and industrial interest groups. On the other hand, almost nowhere does consumers' participation, directly or through their representative organizations, reaches adequate levels. The technical complexity of the energy markets is the most important factor hampering a larger involvement of people lacking the needed expertise in the regulatory process. Moreover, it is suggested that both NRA and governments rarely support the active participation of consumers in all aspects of regulation. This is because of elitist or technocratic traditions that tend to discard the contribution from the general public and to give almost exclusive priority to technocratic judgements.

While enhancing consumers' participation in the energy sector could improve the regulatory process, it must not be forgotten that consumer associations have their own agendas. They could pursue short-term interests that do not coincide with the collective interests of their constituency, for example because in so doing they can get more funding from public or private contributors. Consumer associations can also become entrenched in the political culture of their country and develop strong linkages with

political parties that influence their action. Finally, consumer associations sometimes represent only a fraction of consumers and not the majority of them. For all these reasons, adequate mechanisms should be introduced that warrant responsiveness of consumer associations to the public's long-term interests.

Various models of consumer participation can be devised, ranging from the submission of written observations in regulatory proceedings to the creation of a consumer advocate funded by the State. We provide a detailed description of the forms of consumer participation in the regulatory process of partner countries. This theme is strongly connected to the power of consumer associations to file legal actions against energy companies, discussed in the chapter on the regulation of contract terms.

Final recommendations

The general conclusion of the report is that, with few exceptions, most partner countries were not ready to take up the challenges stemming from the liberalization of retail energy markets. Faced with the pressing needs to protect residential consumers, they tried to preserve the controls on prices and on other aspects of the supplier-customer relationship. However, they did not pave the way for a smooth transition to competition. On the contrary, some protective measures were ineffective or hindered the entry of new suppliers.

We suggest that much work has to be done to put in place the institutional infrastructure that will allow the benefits of liberalization to be fairly distributed to all categories of final customers. The consumer protection measures included in the second electricity and gas directives do not seem to adequately support the development of a workable competition. For each problem discussed in this report we now propose a few recommendations aimed at improving the workings of retail markets. Depending on the type of problem, the institution better positioned to find effective solutions can be located at the national or the European level. Therefore, our recommendations can be addressed to the European Commission, to supranational organizations like ERGEG and CEER or to the NRAs. We also suggest that an ample variety of regulatory tools be employed, including mandatory rules, default rules, soft law and self-regulation schemes.

Search costs and switching costs

The reduction of both types of costs is perhaps the most important task European and national regulators should focus on. The low switching rates documented in most partner countries show that consumers find difficulties in exercising their power to choose. At the same time, energy companies try to make it more costly for consumers to compare alternative offers. To provide effective answers to such issues, we make the following recommendations:

– Recommendation 1

NRAs should adopt a code of commercial practice dealing with the pre-contractual phase. The code should enhance the comparability of offers and discourage energy companies from creating unnecessary complexity in their offers. Belgium and Italy provide useful examples of such codes.

– Recommendation 2

NRAs should sponsor a voluntary code of practice for advertising and marketing activities. It should specify the general principles laid down in the unfair commercial practice directive. Its main objective would be to help NRAs monitoring the behaviour of energy companies.

– Recommendation 3

The European Commission or ERGEG should draft guidelines on the legitimacy of practices widely used in the energy sector like fidelity programs, rebates and tying clauses. Because the validity of such practices depends on complex assessments that must balance various factors, it could be useful to set up a uniform legal framework at the European level. This measure could be justified on two counts: first, it avoids replicating the same assessment in each national regulatory system; second, it avoids the risk of contrasting judgements at national level that could hinder the development of the Internal Energy Market.

Econometric analysis of residential markets regulation

Econometric evidence tends to confirm that residential customers reaped the benefits of liberalization in those countries where full market opening has already been achieved. On the other hand, partial liberalization tends to thwart residential consumers, both in relative terms (with respect to the industrial customers located in the same country), and in absolute terms (with respect to the residential customers of the countries in which residential and industrial customers receive the same treatment).

Although the full market opening of 2007 should induce a homogenization between industrial and residential customers and mitigate the bias against residential customers, a number of persistent problems must be addressed.

– Recommendation 4

High concentration levels in the upstream and downstream markets soften the price-reduction effects of the liberalization process. Therefore, more aggressive actions should be taken in order to enhance competition in electricity and gas markets. In particular, a strong supervision (either by sectoral Authorities or Antitrust authorities) on anticompetitive conducts, predatory pricing, and collusive behaviour by the key players in the retail market is strongly recommended.

– Recommendation 5

The retail market design significantly shapes outcomes. Countries in which consumers are more informed and in which switching is easier have on average lower prices than those that do not display these features. Ensuring more information to consumers and a simpler and cheap switching procedure is crucial for an effective liberalization process.

– Recommendation 6

Policy measures aimed at favouring industrial customers, such as, for example, a bilateral contract market and/or merchant lines accessible only to industrial customers, damage residential customers. It is likely that, under such circumstances, the supply side in the electricity market shifts its revenue from the industrial to the residential

customers, thus damaging the latter. It is crucial to understand that industrial policy measures tend to thwart residential customers. On the policy side, this trade-off has to be evaluated, and a complete welfare analysis, which includes also customers, has to be performed prior to any industrial policy decisions.

Energy consumers' contracts

Regulation of contractual terms in residential energy markets should balance the need to protect consumers with that of fostering competition. It is submitted that, at least for the most important aspects of the contractual relationship, ex-ante regulation is to be preferred to the ex-post judicial control provided by the unfair terms directive. We make the following recommendations:

– Recommendation 7

It would be useful to develop a model standard contract for electricity and gas supply at the European level. Industry associations could be charged with this task under the supervision of the European Commission or ERGEG. Alternatively, the model contract could be inserted in the forthcoming Charter of electricity and gas customers' rights. The model contract could be applied on a voluntary basis in Member States, but it could also become the reference point for regulators and judges. To encourage its adoption, the model contract should escape additional public scrutiny at the national level.

– Recommendation 8

Residential consumers should have the right to terminate the contract at any moment. Allowing energy companies to apply restrictive conditions to consumers' withdrawal risks increasing switching costs. Moreover, there isn't any convincing evidence that energy companies are not able to bear the risk of early termination.

– Recommendation 9

NRAs should draw guidelines about the procedures to be followed for the disconnection of those consumers who cannot afford to pay their bills. The most detailed provisions on this topic are provided by the Belgian and Finnish statutory rules. Useful examples are also provided by the guidelines for preventing debt and disconnection published by Ofgem in January 2003 and the industry-wide safety net

procedure for vulnerable consumers developed by the British Energy Retail association in 2004.

– Recommendation 10

As far as unilateral modifications by energy companies are concerned, two principles should apply. Firstly, unilateral modifications should be restricted to the price element of the contract. Because of the volatility of energy prices, it is reasonable to give the supplier the flexibility to adjust its offers to rapidly changing market conditions. Secondly, enough information should be given to the consumer to enable him to understand the reasons of the change and decide whether to search for better offers. Thirdly, the supplier's right to modify the contract to its advantage when market conditions are unfavourable should be balanced by a symmetrical consumer's right to a price cut when market conditions allow suppliers to reduce procurement costs.

Quality of supply

The report shows that quality regulation in partner countries is far from uniform. Different quality standards and measurement protocols make it difficult to assess whether liberalization pushed energy companies to improve their performance or had negative effects on quality. We suggest that the following three recommendations could ease the convergence toward common models:

– Recommendation 11

The European Commission should employ the power included in art. 28 second electricity and gas directives with reference to high levels of public service and submit to the European Parliament and the Council a proposal aimed at extending the competencies of NRA to quality regulation.

– Recommendation 12

The implementation of incentive systems for improving continuity of supply should be encouraged. CEER and ERGEG should draft more detailed proposals aimed at harmonizing the measurement protocols and at developing common indicators for incentive schemes. Moreover, the forthcoming Energy Customers' Charter should

include specific reference to the duty to adopt incentive schemes that promote optimal levels of quality.

– Recommendation 13

Automatic refunds to consumers in case of quality failures should be mandatory. We suggest that the Charter lists the main continuity and commercial quality standards whose breach gives the customer a right to compensation. The amount of compensation could be left to the discretion of NRAs, but it should be high enough to stimulate firms to comply with quality standards.

Dispute resolution

The report points out various problems with alternative dispute resolution procedures in the energy markets. Consumers seldom have adequate knowledge of their mechanisms. Often there isn't the possibility to obtain financial redress without filing an action in court. Moreover, general consumer bodies lack the financial resources and the expertise needed to adequately assist energy consumers. Therefore, we make the following recommendations:

– Recommendation 14

A specialized consumer body should be created through public or self-regulatory schemes to assist energy consumers in their controversies with energy suppliers. It should have the power to award financial compensation.

– Recommendation 15

NRAs should have the task to spread information on the competencies of the dispute resolution body and make access by complaining consumers as easy as possible

Consumer representation

Various initiatives could be promoted to enhance consumer representation in regulatory proceedings. We make the following recommendations:

– Recommendation 16

Consumer representation should be guaranteed through advisory organisms or directly in the board of the NRAs. The Czech Republic and Belgium are examples of such solutions.

– Recommendation 17

The participation of consumer representatives should be enhanced both through periodic public hearings and the implementation of electronic consultation procedures.

– Recommendation 18

Training programmes, including e-learning, should be organized by NRAs to ensure consumer representatives have the skills needed to assist energy consumers and to actively participate in regulatory proceedings.

1. The methodology of Comparative Law and Economics

1.1 Rules and incentives

The present report discusses the structure and evolution of retail energy markets from the point of view of Comparative Law and Economics (CLE). In this chapter we propose a brief introduction to such methodology.

CLE blends together two strands of legal research, Law and Economics on one hand and Comparative Law on the other. Law and Economics is one of the most successful interdisciplinary approaches to the study of markets and institutions. It was born in the United States in the sixties, but in the last twenty years it has been gaining a large consensus in Europe too.¹ Comparative Law has a long tradition in legal thought, but its collaboration with Law and Economics in recent years promises to deliver new and interesting results.

Legal and economic scholars have employed Law and Economics in two different ways: to analyse legal rules through economic concepts or to analyse the impact of legal rules on markets. It is clear that these two perspectives are not incompatible. They simply reflect a different emphasis on the factors each group of scholars is interested in exploring. In general, we can say that legal rules and economic systems are linked by a two-way relationship: no market could work without the support of legal rules (be they produced by the State or not); at the same time, the legal system must consider the behaviour of economic actors if it does not want to compromise the objective of efficient allocation of resources.

It must be stressed that a consequentialist perspective is the main difference between Law and Economics and a purely legal approach. In the tradition of legal positivism, which is still the dominant approach in legal studies, rules are applied and interpreted according to deductive modes of reasoning. The aim is to safeguard the coherence of the system. Law and Economics focuses on the impact of legal rules on the

¹ Among the most widespread Law and Economics text-books see POSNER (2003); SHAVELL (2004); COOTER and ULEN (2004); POLINSKY (2003); SHAVELL and POLINSKY (2007); SCHÄEFER and OTT (2004). There are two encyclopaedic works on this subject, too: P. NEWMAN (ed.), *The New Palgrave Dictionary of Economics and the Law*, McMillan, 3 vols., 1998; B. BOUCKAERT and G. DE GEEST (eds.), *Encyclopedia of Law and Economics*, 5 vols., Elgar, 2000 (also available at <http://allserv.rug.ac.be/~gdegeest/>).

behaviour of those to whom they apply. Its objective is to analyse the interaction of legal and economic decisions in a given institutional context.

An example helps to clarify the difference between consequentialist and non consequentialist approaches to legal rules. Suppose you want to study products liability rules. A positivistic approach would focus on a textual analysis of the requisites for producer's liability: the meaning of "defect" and "product", rules of causation and so on. Law and Economics would try to answer completely different questions: if producer's liability is justified by asymmetries of information that prevent consumers from maximizing their utility; if the rules push the producers to choose the optimal level of safety; if safer products really increase the welfare of all consumers or damage those groups that do not want to pay higher prices; and so on.

The general lesson of this example is that Law and Economics is interested in discovering the structure of incentives built in each rule or system of rules. In pursuing this objective, the most important tool is a theory of behaviour, that Law and Economics borrows from economic analysis. While microeconomics studies how consumers and firms react to prices, Law and Economics studies how legal rules fix the 'price' for their addressees. Analogizing markets to institutional contexts, it is possible to make predictions on the likely impact of different legal rules.

There are many ways in which the legal system can influence behaviour. Following the terminology of game theory, the branch of economic theory that analyzes strategic interactions,² we can list four different kinds of influences:

- a) legal rules can alter interested parties payoffs: e.g. by granting damages for breach of binding promises contract law modifies the breaching party's expected utility.
- b) Legal rules can alter interested parties' preferences: e.g. when the State forbids smoking some people may come to dislike it
- c) Legal rules can alter (shrink or enlarge) the set of available options: e.g. by forbidding anticompetitive agreements the State reduces the action space of economic actors

² On the application of game theory to legal problems see BAIRD et al. (1994); BENOIT and KORNHAUSER (2002).

d) Legal rules can alter people's beliefs as to the behaviour of other people: e.g. if the State credibly announces that it will strictly enforce copyright laws most people could stop illegal downloading from Internet

It is important to notice that economic analysis has developed many theories of behaviour. From the forties onwards, rational choice theory dominated the scene. However, in the last years new theories of behaviour, based on different premises, have been gaining ground. One of the most promising avenue of research is Behavioral Economics, strongly influenced by psychological studies. Following in its footsteps, the new branch of Behavioral Law and Economics proposed to apply these newer theories to the analysis of legal rules.³ Also influential has been the notion of bounded rationality, firstly proposed in the forties by Nobel prize-winner Herbert Simon. It is clear that adherence to a specific theory of behaviour exerts a profound influence on the role and content of rules to be applied in a specific context. In the following chapters we will explain in more detail why theories of bounded rationality are better able to describe the workings of retail energy markets.

Besides theories of behaviour, another tool frequently employed by lawyer-economists is the notion of transaction costs. Its intellectual paternity is usually ascribed to Nobel prize-winner Ronald H. Coase and his famous 1960 article on the problem of social cost. Transaction costs have subsequently been put at the forefront of New Institutional Economics, the branch of economic theory interested in studying the governance mechanisms of firms and markets. In Law and Economics transaction costs are often pointed out as the ultimate justification for the intervention of the State. In a world without transaction costs, legal rules would be useless because interested parties could easily reach an agreement to maximize total wealth. However, in the real world various categories of transaction costs are a constant hurdle to first-best allocation of resources. In general, it can be said that transaction costs include the costs to acquire information, the costs of bargaining and the costs of enforcing agreements. The level of such costs in each context is one of the most important factors to think of when designing the optimal institutional structure.

³ For collections of essays on the subject see SUNSTEIN (2000); GIGERENZER and ENGEL (2006).

1.2 Institutions matter

There is ample evidence of a close correlation between sustained growth rates and market institutions. According to Nobel prize-winner Douglass C. North, institutions fuel economic development by reducing the transactions costs and opening new and larger choice sets for economic actors.⁴ The relationship between institutions and growth has also been explored from other perspectives. For example, economist Dani Rodrik shows that traditional factors like geography, resource endowment or openness to international trade are far less important than an institutional infrastructure tailored to the needs of each country.⁵ On the other hand, the Law and Finance approach, based at Harvard University and the World Bank, has tried to empirically confirm the link between the legal origins of a country and its ability to implement strong financial markets and investors' protection measures.⁶

These results help to frame the questions this report is bent on answering. It is not enough to pay attention to economic indicators to complete the liberalization process and build the internal market for energy. Instead, the endeavours of European and member States institutions should be directed to an in depth analysis of the regulatory structures that govern the new energy markets. The studies on economic growth mentioned above show that only a carefully constructed institutional infrastructure, together with a strong consciousness of national peculiarities, is able to prompt the huge investments needed in energy markets. These conclusions are shared by that part of the economic literature that includes institutional factors in benchmarking analyses for the energy sector.⁷ A Law and Economics approach to retail markets aims at pushing further such line of research by discussing the micro-level rules that can offer efficient solutions to the economic problems encountered in these settings.

Before addressing the role of Comparative law, one criticism often levied against Law and Economics must be considered. It concerns the conflict between efficiency and equity. Critics of Law and Economics forcefully argue that efficiency can't offer any guide to the choice of legal institutions. On one hand, the notion of Pareto efficiency

⁴ See NORTH (1990, 2005). For an application of North's ideas to the electric industry see CHABAUD et al. (2005).

⁵ See RODRIK (2003, 2004). See also EGGERTSSON (2005).

⁶ See generally DJANKOV et al. (2003).

⁷ See, e.g., GREEN et al. (2005); JAMASB et al. (2005); STERN and CUBBIN (2005); BROWN et al. (2006).

would be useless because it incorporates a criterion of unanimity which is unable to tackle the complexities of real institutional contexts. On the other hand, Kaldor-Hicks efficiency would promote interventions that benefit some people and damage someone else. In this case the problem is the lack of a widely accepted criterion to choose those who must bear the burden of a specific policy and to set an adequate measure of compensation.

In the field of public services the clash between efficiency and equity is at its height. It is clear that the liberalization process gives a privileged status to the objective of efficiency, but does not guarantee that its benefits will be distributed among all categories of consumers. This is the reason why the gas and electricity European directives gave member States the power to implement public service obligations in their national regulatory systems.

Therefore, it seems that the European regulatory model tries to overcome the conflict between efficiency and equity and asks member States to resolve the tensions provoked by their coexistence. As we shall see in the following chapters, this is more easily said than done.

1.3 Comparing regulatory options

Comparative law is the branch of legal studies that tries to discover and explain similarities and differences among legal systems. In the twentieth century it contributed to the development of knowledge about western and non-western legal traditions. In the last twenty years it also promoted awareness of the problems the construction of a European common law shall deal with.

The blending of Comparative law and Law and Economics has been proposed as the solution to the shortcomings of both disciplines.⁸ Comparative law is a purely descriptive approach. It aims to give an accurate picture of the law as it is, but lacks the tools needed to sustain prescriptive proposals aimed at legal reforms. Moreover, it is not able to employ quantitative methods to measure similarities and differences among legal systems.

⁸ See generally MATTEI (1997); ANTONIOLLI et al. (2000); DE GEEST and VAN DEN BERGH (2004); FAUST (2006).

Law and Economics can address such weaknesses. The economic notions of efficiency and transaction costs give at least some guide on the desirable institutional choices and their probable impact. Moreover, quantitative research can help uncover new information that traditional legal research methods could not be able to detect. However, Law and Economics suffers from its own shortcomings. First of all, lawyer-economists pay scant attention to the peculiarities of national legal systems. Most of the literature in this field refers to American examples. When other legal systems display significant differences, models built with American law in mind cannot be relied upon. Secondly, Comparative law can save Law and Economics from the excesses of functionalism. It is a mistake to suppose, as lawyer-economists often do, that every observable institution is the efficient answer to economic problems. Comparative law shows the role that historical accidents and unforeseen consequences play in moulding institutions. This lesson has been absorbed in the branch of economic literature that employs the notion of path dependence. Moreover, Comparative law shows that the same economic problem can be solved in different (and equally efficient) ways in different legal systems. Therefore, it injects a more sophisticated and realistic vision of legal dynamics in Law and Economics.

Putting together the various strands of legal and economic research summarized above, it is now possible to discuss how they apply to the analysis of retail energy markets.

1.4 The Law and Economics of retail energy markets

In the economic literature the analysis of retail energy markets is usually focused on the level of competition, the performance and strategies of firms and the choices of final consumers. The main drivers of the analysis are the factors that influence prices and costs on both sides of the markets. A Law and Economics approach shifts attention to the connection between economic problems and incentives induced by the regulatory framework. The working hypothesis is that legal rules shape the environment in which firms and consumers make their choices. From this point of view, the main drivers of the analysis are not economic or technological, but of an institutional type. It could be said that Law and Economics rejects the idea of a one-way causation mechanism going

from markets to rules. Instead, it proposes to explore the reverse chain from rules to markets. To be sure, it could seem that such an approach falls prey to the well-known chicken-and-egg problem. However, analyzing only the economic side fares no better and risks offering wrong answers to policy-makers interested in the smooth operation of energy markets.

For example, let's consider suppliers' entry strategies in retail markets. It is often suggested that new entry is too limited despite there being significant gains for those firms which manage to steal clients from incumbent suppliers. It could be that such conduct has economic explanations. What is argued here is that compelling reasons for the low levels of entry in retail energy markets can also be found in the rules that govern the transfer of clients, the exchange of information, the marketing practices of incumbent suppliers and so on.

More generally, a Law and Economics approach to retail energy markets means a sustained attention to the institutional determinants of contractual relationships between energy firms and residential consumers. We do not neglect economic factors (e.g. technological choices and production costs), but they are not the end point of the analysis. In the chapter that follows we will discuss the most important problems residential consumer must face. Building on the insights of economic theory, we should be able to describe the regulatory answers (or the lack thereof) devised in the partner countries, evaluate their efficiency and suggest improvements when needed. All the tools designed by Law and Economics in the last forty years, from the analysis of incentive structures to transaction costs, can be usefully redeployed in the study of retail energy markets.

2. The problems of retail energy markets

In this chapter we propose a brief survey of the main problems regulators shall tackle in retail energy markets. They are information asymmetries and bounded rationality of consumers, unfair terms in standard contracts drafted by suppliers, quality of supply and dispute resolution procedures. None of them is a peculiarity of energy markets. On the contrary, they are well-known in most other markets as well. This commonality is often underlined in the economic literature to argue that energy consumers do not need additional protection over and above that already provided by consumer law. This argument is not very convincing, however.

First of all, we should not consider only the type of problem, but also its relevance in each market. It has not been demonstrated that the four issues discussed below are easier to solve in energy markets than elsewhere. Instead, there is reason to suppose that, at least for some of them, the reverse could be true. Each country has to make a huge educational investment before consumers learn to exercise their freedom to choose the cheapest supplier. Because of such learning effects, in the period immediately following liberalization information asymmetries and cognitive errors could be widespread. Moreover, in the new scenario the fairness of some terms inherited from the monopoly era could be debated and dispute resolution procedures could not work well or not exist at all.

Secondly, consumer law is not a perfect tool. It causes both underdeterrence problems, by not stopping inefficient and unfair practices, and overdeterrence ones, by barring practices that would increase the welfare of businesses and consumers alike. In energy markets, statutory and regulatory interventions could complement and strengthen consumer law, as well as remedy to its weaknesses. Of course, the coexistence of two groups of rules could be a source of conflicts whenever regulatory policies collide with those of civil judges, consumers' associations and other stakeholders empowered to enforce consumer law. Though, this observation cannot be disposed of by cancelling regulation in retail markets. It is up to regulators and legislators to devise coordination mechanisms that lessen the risk of conflicting interventions in energy markets.

Thirdly, electricity (and partly gas) display an array of physical and economic characteristics that complicate consumers' choices:

- a) electricity cannot be stored economically;
- b) it must be supplied through a non duplicable network in which supply and demand must be always in equilibrium (the same for gas);
- c) short-run demand elasticity is very low and, combined with inelastic supply at high demand levels, contributes to the inherent volatility of electricity prices;
- d) technical characteristics of the networks and high fixed costs in the production segment constrain the development of competition.⁹

All these factors point in the same direction: electricity (and partly gas) are very peculiar goods for which we should not expect that all domestic consumers are able to make rational and informed choices.

Before discussing in more detail each of the four categories of problems mentioned above, it is useful to make some preliminary observations on the relationship between competition and consumer protection. While competitive markets are usually the best means to increase consumers' welfare, we cannot exclude that sometimes these two objectives push regulators in opposite directions. Moreover, we should reflect on the need to deploy measures that foster competition both on the supply and the demand side of energy markets, as well as on the justification for such measures in reasonably competitive markets. The analysis proposed in this chapter will be used to interpret the data on energy consumers protection collected in the remaining part of the report.

2.1 The relationship between competition and consumer protection

There is a large consensus on the proposition that competition increases consumers' welfare. However, the liberalization process pushes both public institutions and academic scholars to confront some deeper questions. First of all, is it safe to assume that removing entry barriers is all that is needed to reap the benefits of competition? Or should we also introduce measures that help final consumers to profit from competition? Secondly, are there cases in which policies aimed at promoting competition collide

⁹ JOSKOW (2005).

with consumer protection ? Thirdly, which conditions should regulators verify before they decide to dispense with consumer protection measures beyond those already provided by general laws ?

To begin with, scholars increasingly reject the view that competition policies should only be addressed to the behaviour of firms. In newly born markets, where consumers did not choose suppliers for a long time, regulators should encourage them to be more active in searching for information and switching supplier.¹⁰ This means that measures directed to the demand side are as important as those directed to the supply side. In this case we can observe regulations that reduce consumers' search and switching costs, but at the same time foster competition because they make it easier for new entrants to steal customers from incumbent operators.

A less straightforward relationship between competition and consumer protection can be detected in other cases. Increasing the number of suppliers adds to the complexity of consumers' choices. They now face costs that would not exist but for the opening of residential markets to competition. Because of such costs and the cognitive problems discussed below, we cannot be sure that a higher number of suppliers warrants lower prices and better quality. Therefore, we are confronted with the paradox that liberalization policies aimed at benefiting consumers could instead damage them.¹¹

Of course, the reverse could also be true: consumer protection measures have the potential to hamper competition. For example, imposing mandatory terms in residential energy contracts allows consumers to call on a minimum level of contractual quality. At the same time, it could hamper innovation and make more difficult for energy firms to tailor contractual terms to the needs of consumers.¹²

¹⁰ See WATERSON (2003); VICKERS (2003); ENNIS and HEIMLER (2004); CSERES (2005, p. 325ff.).

¹¹ See the analysis provided by SYLVAN (2004) and CSERES (2006). Another example of possible conflict between competition and consumer protection is offered by GOMEZ (2003, p. 17f.): new entrants need to employ aggressive advertising campaigns to overcome the loyalty usually displayed by consumers toward incumbent operators. However, strict enforcement of misleading advertising laws could frustrate the efforts of new entrants and reduce the level of competition in the market. It is suggested that judges and regulators should grant more leeway to new entrants when evaluating their ads. This approach could increase competition and produce benefits that outweigh the costs borne by misled consumers. However, it is not clear that regulators are able to balance these conflicting ends. The risk is that the diffusion of unfair commercial practices fosters distrust in markets and dampens the ultimate objectives liberalization is bent to reach.

¹² For a more general discussion of the tension between competition and consumer policies see CSERES (2005, p. 327f.).

One final aspect of the relationship between competition and consumer protection must be discussed. Suppose liberalization policies succeed in creating reasonably competitive markets. Should we conclude that we can forgo the regulation of residential consumers' contracts? The answer is no. The problems discussed in more detail below do not disappear even in competitive markets.

A further problem relates to the goals and tools of different regulatory approaches. If we believe that competition is all that matters, we should be willing to rely on competition law as the main regulatory tool. However, competition and consumer law do not pursue the very same goals. The former is mainly interested in the total welfare of consumers and firms, while the latter is concerned with consumer welfare in terms of price, choice and availability.¹³ This means that the two standards could lead to conflicting assessments: a market that is working well from the point of view of competition could produce bad outcomes from the point of view of consumer law. An interesting example is the legitimacy of standard terms according to antitrust and consumer law. In some cases they enhance transparency and comparability of offers. If anti-competitive effects are lacking, antitrust rules do not apply. However, standard terms could still take unfair advantage of consumers without interfering with the operation of the market. A parallel assessment conducted by different authorities with different criteria could easily produce conflicting outcomes.¹⁴

Therefore, the question is not whether we need consumer protection measures, but what kind of measures are better able to protect consumers without hampering competition. We can summarise our discussion as follows:

- a) competition can benefit consumers, but it can also hurt them;
 - b) when designing regulatory measures aimed at fostering competition, attention should be paid both to the behaviour of firms and to the behaviour of consumers;
 - c) increasing competition can damage consumers, whereas protecting consumers can hamper competition. Therefore, in both cases regulators should balance costs and benefits for all the interested parties;
 - d) one cannot rely exclusively on competition to protect consumers.
- Depending on the structure of markets and the institutional context, various

¹³ This point is developed by CSERES (2005, p. 307ff.).

¹⁴ On this topic see MIRONE (2003); NEBBIA (2006).

kinds of measures can be introduced that improve on the decision-making skills of residential consumers and ensure efficient market equilibria.

2.2 Information asymmetries and bounded rationality

Both information asymmetries and bounded rationality manifest themselves whenever somebody has to make a choice. Economic literature started to build a coherent analytical framework for the first problem in the sixties. The second one gained widespread attention in the last decades thanks to suggestions coming from the psychological literature.

In general, firms are better informed than their clients about two things: The quality of the product or service they supply and the quality of the terms they drafted. Consumers, on the other hand, are better informed about their own preferences and the way they want to use the product or service. This informative advantage is bound to disappear when firms can discover their clients' preferences by observing their past behaviour or the choices their clients make among a menu of offers.

Contracts made in situations of asymmetric information do not warrant efficient outcomes. That is, consumers could buy products or services they value less than they pay for. Alternatively, they could buy too much or too little of a product or service. In both cases, asymmetric information precludes the optimal allocation of resources that would obtain in a perfectly functioning market.

In retail energy markets the attention devoted to the issue of transparency is an explicit recognition of the relevance of information asymmetries. Art. 3 second directives on electricity and gas states that adequate measures must be implemented to guarantee transparency of prices and other contractual conditions. Further indications on information that must be provided to consumers are in Annex A to the directives. In its report and best practice proposition on this subject, ERGEG emphasized that transparency gives consumers the possibility to choose among different suppliers and furthers the goal of strengthening competition.¹⁵

It is easy to notice that, whenever legislators and regulators face a problem of asymmetric information, their almost automatic reaction is to multiply the duties of

¹⁵ See ERGEG (2005c, 2006c).

disclosure on behalf of the firms and to make available the largest number of informational sources. This 'more is better' approach is not always successful, however. Many studies show that duties of disclosure are often unable to increase the awareness of consumers and their ability to make a rational choice.¹⁶ To understand the reasons for such failure, we must turn to the notion of bounded rationality, that is to the way individuals process and use information.

According to Herbert Simon, the scientist who coined the term in the forties, winner of the Nobel prize for economics in 1978, decision-making processes must be understood as the outcome of two interacting factors: the computational abilities of the human brain and the complexities of the environment in which the decision-maker performs her tasks.¹⁷ Until recent years, this was a minority's view. Mainstream economic literature was entirely built on rational choice theory. Its main assumptions are that individuals have unlimited computational abilities and wish to maximize their own utility. No attention is devoted to the processes that real people employ when making choices, nor to the influence the context can exert on them.

Rational choice theory is unable to explain why duties of disclosure fail to raise consumers' awareness. Bounded rationality offers an immediate answer. People do not have unlimited cognitive resources. Moreover, they often confront complex environments rife with uncertainties. Therefore, they try to economize on their cognitive efforts by means of simplified decision-making processes called heuristics. These mental shortcuts allow people to make choices without considering all the information that would be needed according to rational choice theory. They voluntarily eschew a large part of such information and focus on those cues which can guide them in the appropriate direction.

Heuristics can have two opposite consequences. If they match to the decision environment, individuals will be able to reach satisfying results. On the other hand, if heuristics fit poorly to the task that must be performed, individuals will make erroneous and biased choices. Two different strands of the psychological literature have emphasized the positive and negative sides of heuristics. It is clear that a deeper

¹⁶ See, e.g., HOWELLS (2005) and references therein.

¹⁷ See, e.g., SIMON (1982-1997). For a thorough analysis of his work see the essays collected by AUGIER and MARCH (2004).

understanding of how heuristics are selected in different contexts is needed.¹⁸ For our purposes, suffice it to note that regulatory strategies thought to enhance transparency could be less helpful for boundedly rational consumers. If not provided in the right format, information supplied to them could be simply discarded or interpreted in the wrong way.

It is interesting to notice that signs of bounded rationality have been uncovered in the British energy retail market, one of the most mature in the world. Residential customers can make three different kinds of mistakes: a) do not switch to a cheaper supplier; b) switch to a more expensive supplier; c) switch to a cheaper supplier, but not the cheapest one.¹⁹ Other studies on the British retail markets confirm these findings. A research commissioned by Ofgem, the British regulator, shows that 60% of customers that switched to a new suppliers were satisfied of their choice. Thus, the remaining 40% could be victim of cognitive errors.²⁰ Another research conducted on behalf of Energywatch, the British energy consumers' representative, highlights that consumers generally prefer to be told what supplier is better for them rather than having to work it out for themselves.²¹ This reaction is perfectly compatible with bounded rationality, but casts a shadow on the many regulatory initiatives aimed at improving the ability of consumers to choose among suppliers.

The implications of asymmetric information and bounded rationality can now be discussed with reference to two issues: how energy consumers choose a supplier and what kind of regulation should be introduced for energy contract terms.

2.3 *Switching costs*

Switching costs arise when a customer wants to change her supplier. They come in different guises:²²

- a) transaction costs, related to time and effort needed to change supplier

¹⁸ See generally GILOVICH et al. (2002); GIGERENZER and ENGEL (2006).

¹⁹ WILSON and WADDAMS PRICE (2005, 2007). The authors also note that the accuracy of choices does not improve after many years from the opening of the retail market.

²⁰ See the survey conducted by Accent in the Annex to Ofgem, *Domestic Retail Market Report – June 2005* (www.ofgem.gov.uk).

²¹ See Accent Marketing and Research (2005).

²² See generally OFT (2003); POMP et al. (2005); KLEMPERER and FARRELL (2005).

b) compatibility costs, related to connections among parts of the equipment employed for the supply. In the energy sector a compatibility issue could arise when a customer has to change her meter equipment if she wants to change supplier.

c) Learning costs, both on the supplier's side, who knows better the needs of her long-time customers, and on the customer's side, who must learn how to deal with a new supplier.

d) Contractual costs, created by suppliers through specific terms or fidelity programs.

e) Uncertainty costs, related to the difficulty of appraising the quality of the products or services of the new supplier.

f) Psychological costs, related to trust relationships with actual suppliers.

g) Shopping costs, which increase the propensity to buy different products or services from the same supplier.

h) Search costs, incurred whenever the customer wants to find an alternative supplier.

The economic literature points out that switching costs can alter the competitive structure of markets, but their presence should not be taken as proof of diminished consumer welfare. Only an in-depth analysis can say if firms are able to exploit switching costs to the detriment of consumers. Moreover, the level of switching should not be assumed to be a reliable indicator of the measure of such costs. Low levels of switching could mean that suppliers offer the same quality and prices. In this case, switching costs can be high or low. On the other hand, there could be a socially excessive level of switching when suppliers pay consumers to switch.

Notice also that switching rates say nothing about levels of concentration in retail markets. High switching rates can be accompanied by strong re-concentration trends, as seen in England, while low switching rates are documented in countries with a large number of suppliers (e.g. Finland).²³

With these caveats in mind, we share the common view that switching costs shall be monitored and reduced whenever possible. In 2005 ERGEG surveyed switching

²³ See GLACHANT (2006).

practices in European countries and showed the existence of divergent rules and procedures. ERGEG best practice proposition on supplier switching process, published in 2006, aims at establishing uniform basic principles that ease switching.²⁴

As shown in chapter 4, however, the effectiveness of such principles should be assessed with reference to the problems of asymmetric information and bounded rationality that real people face. If regulators introduce duties of disclosure and price comparison sites, we should assess whether they reduce search costs. Bounded rationality could be relevant, too. Low switching rates are documented all over Europe. Even in the British retail markets, amongst the most developed in the world, there is a lot of inertia. People often prefer not to switch even though they could save money. Is such behaviour irrational? Or are we putting a heavy cognitive burden on the shoulders of residential consumers? To answer these questions we need a better knowledge of mental processes at work in the decision to switch. Some plausible suggestions can be derived from psychological studies on the procrastination bias.²⁵

Like many other choices, the decision to change supplier has a strong inter-temporal dimension. More specifically, the consumer has to incur the immediate costs of switching in order to reap the future benefits of cheaper bills and better service. In a variety of contexts with analogous time structures individuals show time-inconsistent preferences. That is, they overestimate the probability of undertaking activities with current costs and delayed benefits.²⁶ Usually, costs are delayed for as long as possible so as to gain the benefit of not incurring them.

The procrastination bias has clear and worrying implications for regulatory interventions on switching costs. If this psychological mechanism hinders the decisions of energy consumers, strategies aimed at increasing the information on alternative offers and smoothing the switching process could be less efficacious than one would hope. More information could not overcome inertia. If this is the case, subtler strategies are needed. For example, automatic renewals are a well established practice for residential energy contracts all over Europe.²⁷ Though, they risk reinforcing the procrastination bias. One year after the other, consumers are tempted to delay the investment in time

²⁴ See ERGEG (2005b, 2006b).

²⁵ See generally the works collected in LOEWENSTEIN et al. (2003).

²⁶ With specific reference to switching behaviour see DELLA VIGNA and MALMENDIER (2004).

²⁷ See the analysis of energy contract terms in chapter seven.

and effort required to switch supplier. Now suppose automatic renewals were forbidden. At the end of each contractual period, consumers would be forced to subscribe a new contract with the same or a different supplier. Arguably, the effort requested for each subscription could reduce the distance between the costs of renewing the contract and the costs of switching supplier.

It is easy to forecast that energy firms will try to structure their contracts so as to exploit consumers' biases. Moreover, they will deploy all kind of marketing techniques which help to fence off their competitors. For example, win-back strategies are incumbents' strategies aimed at contacting a former customer who switched to a new entrant, for the purpose of regaining that customer back. The economic literature points out that such strategies are widespread in the network industries and can have the same anti-competitive effects of other predatory strategies. No less dangerous could be more traditional strategies like rebates and fidelity discounts.²⁸ Another common marketing strategy is the offer of a range of value-added services. It is suggested that this strategy increases the complexity of comparisons among competing offers and diminishes the probability of switching. The same effect can be obtained with ad messages that stress the uncertainty inherent in dealing with a new supplier.²⁹

It is the task of regulators to monitor business practices and forbid any initiatives which could reinforce market power. However, it must not be forgotten that practices supposed to be detrimental to consumers can often be explained on competitive grounds. Moreover, a suspect term can benefit some categories of consumers and damage another. Each regulatory intervention should be supported by a careful assessment of its economic and psychological consequences on consumers.

2.4 Unfair terms

Unfair terms are a recurring theme in consumers' contracts. Asymmetric information and bounded rationality explain their presence in standard forms. Reading and understanding contracts can be very costly for consumers. At the same time, the benefits they can hope to gain are limited. Firms know most consumers do not read.

²⁸ See NICITA (2006); OECD (2003).

²⁹ See HARTMANN e IBÁÑEZ (2007).

Therefore, they are free to insert terms that transfer risks to their clients without compensating them.³⁰

Law and economics scholars disagree on the best solution to the problem of unfair contract terms. Some argue that such terms should be banned altogether. Others suggest a more cautious approach, pointing out that an all-encompassing ban could adversely affect some groups of customers, forced to pay higher prices or to accept mandatory terms they dislike. Moreover, it is suggested that, because of reputational constraints, firms enforce unfair terms in a selective way: they are applied against opportunistic consumers, but not against clients with whom firms want to preserve a long and cooperative relationship.³¹

Various economic models show that, with boundedly rational consumers, we cannot simply trust the market.³² Firms have more to gain by increasing the complexity of their forms than by disclosing to consumers all the risks they transfer to them. It is plausible to assume that in energy markets, as in any other markets, there are sophisticated consumers (those that read contracts) and naïve consumers (those that do not read contracts). Firms have every incentive to exploit consumers' naivete by hiding onerous terms and making more difficult to appraise their cost. By so doing they earn supra-competitive profits that would not be possible had all consumers been able to read contracts. While naïve consumers pay more for the product or service, sophisticated consumers pay less because they learn to avoid disadvantageous terms. Therefore, naïve consumers subsidize sophisticated ones. The crucial point is that all firms have the incentive not to educate naïve consumers and to find new ways to exploit them.

There is also a direct link between contracting strategies and the competitive structure of markets.³³ Firms can use complex standard forms not only because they want to exploit consumers' bounded rationality, but also because they make it easier to raise prices. If consumers find it difficult to compare offers, each supplier can use harsh terms or rise his prices without fearing the loss of too many customers. As a result, we could have supra-competitive prices even absent collusion. Moreover, complexity of contracts can also serve as a barrier to entry of new firms into the market. Consumers

³⁰ See, e.g., KOROBKIN (2003).

³¹ See, in this vein, GILLETTE (2004); BEBCHUK and POSNER (2006); JOHNSTON (2006).

³² See ALCES (2006), who relies on the model by GABAIX and LAIBSON (2006). See also GANS (2005) and BAR-GILL (2006).

³³ See GILO and PORAT (2006).

will find it difficult to understand that the new entrant is offering a better deal. Therefore, less consumers will switch and entry will be less profitable.

Directive 93/13/CE on unfair contract terms applies in the retail energy markets. However, we ask whether the ex-post judicial control introduced by such statute warrants an adequate level of protection to energy consumers. Annex A to the second electricity and gas directives lists the consumer protection measures member States shall apply at least to households. This report tries to understand if partner countries rely on general consumer law or recur to more specific interventions to protect energy consumers. Alternative solutions include ex-ante approval of terms and conditions, mandatory terms drafted by the legislator or the regulator, industry self-regulation.

Information on energy consumers' contracts was collected by ERGEG in 2005. In 2006 a best practice proposition for customer protection was published that focuses on timely connections to a distribution network, reliable and continuous supply and effective dispute resolution mechanisms.³⁴ In this report we provide more detailed and updated information on this topic, evaluate the content of the terms drafted by legislators or regulators and discuss national case law on energy consumers' contracts. Moreover, the report is interested in evaluating the efficiency and effectiveness of the measures adopted in each country.

2.5 Quality of supply

According to CEER definitions, quality of supply in energy markets involves two aspects: commercial quality and continuity of supply.³⁵ The first relates to the nature and quality of customers service provided to energy consumers. The second relates to the number and duration of supply interruption. While commercial quality can be ensured both by suppliers and network operators, continuity of supply only refers to obligations fulfilled by network operators. Recently, the new dimension of voltage quality, related to power disturbances on transmission and distribution network, has been added to the debate on quality regulation.

³⁴ See ERGEG (2005a, 2006a).

³⁵ See CEER (2005a).

This report is interested in evaluating the improvement or worsening of quality after the start of liberalization. The topics explored in more detail include the content of the standards introduced by regulators, the structure of incentive mechanisms that should push energy firms to improve quality and the compensation paid to energy consumers when quality standards are not met.

It must be emphasized that quality regulation is by no means a simple task. In theory, the optimal level of quality corresponds to the point in which the marginal costs of additional investments by firms and the marginal benefits for consumers are equal. Beyond such point, quality costs more than consumers are willing to pay.³⁶ However, regulators lack information needed to choose the optimal level, that is firms' costs and consumers' preferences. Therefore, quality regulation is often conducted on the basis of strong information asymmetries and cannot be supposed to maximize social welfare. What's more, standards are not tailored to the specific needs of each consumer, but represent average estimates. This means that some consumers could pay more than they receive, while others could pay less. Benchmarking quality standards at European level could be useful, but the differences among national networks and commercial practices blur the conclusions regulators are able to draw from such exercise.

2.6 Dispute resolution

According to Annex A of the second electricity and gas directives, member States must ensure that energy consumers can avail themselves of transparent, simple and cheap dispute resolution procedures, in accordance with European Commission's Recommendation 1998/257/CE. Data on dispute resolution procedures in the energy sector were collected by ERGEG in 2005.³⁷ This report provides further data on this topic, with specific reference to the following aspects:

- a) whether dispute resolution tasks are assigned to the regulator, to a specialized consumer body or to a general consumer body;
- b) the procedure to be followed and the remedies available
- c) the number of complaints received by each dispute resolution authority and their outcomes

³⁶ See generally SAPPINGTON (2005); AJOHDIA and HAKVOORT (2005).

³⁷ See ERGEG (2005a, p. 19-38).

d) case law of national courts concerning residential energy consumers' contracts.

From a Law and Economics perspective, alternative dispute resolution mechanisms can be conceived of as cost-avoiding solutions for small claims litigation.³⁸ However, a number of institutional choices have to be made if they are to work effectively. First of all, it should be decided if energy consumers are better represented by the sectoral regulator, by an independent but specialized body or by self-regulatory industry ombudsman schemes.³⁹ Pros and cons can be detected for all available options. When the regulator handles disputes, he has the technical knowledge needed to appraise the merits of the claim. On the other hand, he could give more weight to the development of competition and decide not to enforce aggressively consumers' rights. An independent but specialized body could avoid such trade-off, but should have large human and financial resources to acquire credibility. It should also have the power to force firms to comply with its orders. An industry ombudsman scheme could be less expensive for the State, but its independence from the industry should be guaranteed. Moreover, there should be the possibility to apply substitute remedies when self-regulation does not deliver the expected results.

It must be added that socio-legal studies raise many doubts on the effectiveness of ADR procedures. They point out that some groups of consumers have no access to such procedures. These groups include the elderly, low-income consumers and immigrants. In general, they are less willing to complain and less successful when they do complain. Moreover, psychological biases such as cognitive dissonance could further reduce the number of complaints. Consumers often tend to downplay the negative aspects of choices they made. Therefore, they do not complain (or do not exercise termination rights) because they do not want to admit they made the wrong choice.⁴⁰ We do not

³⁸ See DUGGAN (2003).

³⁹ A further option is to combine the enforcement of competition law and consumer protection in the hands of the National Competition Authority. The main advantage of this solution is to avoid the conflicts between the goals of the two approaches and to produce useful synergies. It was adopted in USA with the Federal Trade Commission, in UK with the Office of Fair Trading, in Australia with the Australian Competition and Consumer Commission, in Hungary with the Office for Economic Competition. See CSERES (2005, p. 411ff.). However, it remains to be seen how the National Competition Authority weights the competing interests of firms and consumers, as well as the interests of different categories of consumers.

⁴⁰ See RAMSAY (2003).

have data to confirm such predictions, but we do show that in many partner countries there is much room for improvement of dispute resolution procedures. It is clear that the design of dispute resolution procedures should take in account the problems faced by some groups of consumers. Regulators should endeavour to improve the awareness of such groups by targeting their campaigns, reducing any psychological barriers and prevent outcomes biased against more vulnerable groups.

3. An overview of the liberalization process in the 27 Member States

The foundation of a European energy and gas market began with the Directive 1996/92 for electricity and Directive 1998/30 for gas. They were repealed by Directives 2003/54 and 2003/55, which set the objective of full liberalization by 1st July 2007.

The proper and complete transposition of the European directives by all the Member States is a fundamental requisite for the achievement of such an objective. The Commission monitors the process, providing yearly benchmarking reports on the liberalization process.

In Annex E we list the national laws and regulations that implemented the first and second electricity directives within the 27 Member States, together with a short analysis of the national market. To give the reader an overview of the liberalization process, in the two tables below we synthesize some data that help to grasp the level of competition in domestic retail markets so far and the role consumers' interests play in the regulatory process.

Table 3.1 shows the full opening dates of retail markets in those countries that decided not to wait for the European deadlines. The switching rate is the percentage of domestic consumers that decided to avail themselves of the opportunity to change the electricity or gas supplier. In general, high switching rates mean that there are many suppliers, barriers to entry are low, consumers are well informed and their choices are not hampered by unnecessary costs. Some caveats are worth repeating, however. Firstly, as already mentioned in chapter 2, switching rates are only one indicator of market competitiveness among many. Therefore, markets with high switching rates should not be assumed to work smoothly and viceversa. Secondly, the criteria employed to measure switching rates in Member States are far from uniform. From time to time they refer to the total number of switching consumers from the beginning of the liberalization or the annual switching rate, they consider the number of injection points or the consumption volume, they distinguish residential consumers from small businesses or give aggregate data.

These shortcomings do not prevent us from taking home a general lesson. With the exception of the UK, all countries that experienced with full opening of residential markets display low switching rates. Although in many cases consumers gained from

competition by renegotiating their contracts with the traditional supplier, it is not farfetched to suggest that almost nowhere residential markets met with instant success. Low switching rates seem to be the sign of deeper troubles, whose causes we shall investigate in the following chapters. There is much that can be learnt from the experience of pioneer countries, and these lessons should not be lost. Chapter 4 proposes further reflections on the beginnings of residential market liberalization in partner countries.

Table 3.2 shows the institutional solutions that Member States employed to give voice to the consumers' interests. Three different roles of consumers' representatives can be highlighted:

- a) direct involvement in regulatory proceedings;
- b) channels for information diffusion
- c) dispute resolution.

The dominant solution is clearly to assign the NRAs the task of implementing consumer protection measures. Usually an internal division lays down the rules for the residential market and processes the complaints. However, in six countries a specialized consumer body was introduced for the resolution of disputes among energy companies and their customers. Consultative bodies were introduced in six countries. Eight countries relied, exclusively or in parallel with specialized bodies, on general consumer bodies. So far, only France included consumers' representatives in the board of the NRA.

It is clear that specialized consumer body render more visible the interests of residential consumers in regulatory proceedings, could attract more financial resources and develop sound policies in the management of consumers' complaints. However, it should not be forgotten that energy regulators have to balance the interests of different categories of consumers. For this reason, it would a mistake to think that there is a single solution for all countries. On the contrary, the national institutions of consumers' representation should be evaluated according to their effectiveness in promoting their goals.

Further suggestions on this topic are proposed in chapter 10 after a broader discussion of the institutions of consumers' representation adopted in partner countries.

Table 3.1 – Early liberalizations of the residential market

Country	Electricity	Natural gas	Switching rate (%)
Austria	1.10.01	1.10.02	2,8(elec.), 1,6(gas)
Belgium	1.1.03 (Flemish R.), 1.1.07 (Walloon and Brussels-Cap. R.)	1.1.03 (Flemish R.), 1.1.07 (Walloon and Brussels-Cap. R.)	15,5 (elec.), 13(gas) (Flemish R. only)
Czech republic	1.1.06	-	N.A.
Finland	Oct. 1998	-	11
Germany	April 1998	April 1998	2,2 (elec. 2005), 0.01 (gas 2005)
Italy	-	1.1.03	1
Netherlands	1.7.04	1.7.04	13,5 (elec.), 10,9 (gas)
Portugal	4.9.06	-	N.A.
Spain	1.1.03	1.1.03	7 (elec.), 5,8 (gas)
Sweden	1999	-	1,7(Apr.05-Mar.06) (32% total since deregulation)
UK	May 1999	1998	48 (elec.), 47 (gas)
Denmark	1.1.03	1.1.04	4,8(elec.), 0,24 (gas 2004)
Ireland	Feb. 2005	-	Negligible (elec.),

Table 3.2 – National institutions for the protection of energy consumers

Country	NRA	SCB	GCB
Austria	E-Control		
Belgium	CREG, VREG, CWAPE, BRUGEL	Comité Energie (Walloon Region), Cons. Usagers elec. Gaz (Brussels-Cap. Reg.)	
Bulgaria	SEWRC		
Cyprus	CERA		
Czech Rep.	ERO	Advisory Corps	
Denmark	DERA	Energy Supplies Complaint Board	
Estonia	EMI		Consumer Protection Board
Finland	EMV		Cons. Complaint Board, Fin. Cons. Agency
France	CRE	Médiateur nat. énergie	
Germany	Federal Network Agency		
Greece	RAE	Settlement Body for metering disputes in the gas sector	Consumer Ombudsman, Body for consumer protection of pub. serv. companies
Hungary	HEO	EIRB	
Ireland	CER (cons. complaints from 2007)	Energy Group Gen. Cons. Council NI	Consumer Council
Italy	AEEG		Chambers of Commerce
Latvia	PUC		
Lithuania	NCC, State Energy Insp., Government		NVTAT
Luxembourg	ILR		
Malta	MRA		
Netherlands	DTe		ConsuWijzer
Poland	ERO (spokesman for energy consumers)		
Portugal	ERSE (NACE)		
Romania	ANRE, ANRGN	Advisory Council	
Slovak Rep.	URSO		
Slovenia	Energy Agency		
Spain	CNE	Electricity and Hydrocarbons Consultative Boards, Regional or local energy authority	
Sweden	STEM	Consumers' Electricity Advisory Bureau	Swedish Nat. Board for Consumer Complaints
United Kingdom	OFGEM	Energywatch, Energy Industry Ombudsman	

4. The level of competition in retail energy markets

In this chapter we describe the degree of residential markets opening, the concentration ratios and the switching rates in the countries of partner consumer associations. At European level, on the whole 12 Member States opened the electricity residential market and 8 the gas residential market before the mandatory deadline of 1st July 2007. We focus on the experience of those countries described in the questionnaire compiled by the partners of the project. After defining the competitive structure of retail energy markets, we try to understand the hurdles (if any) that consumers must confront with when exercising the right to choose the supplier. Data also come from European Commission reports, NRA's documents and independent studies.

4.1 Retail markets opening

The following table summarizes the degree of retail markets opening in the electricity and gas sectors of the partner countries.

Table 4.1 - Residential markets opening

Country	Electricity	Gas
Austria	1.10.2001	1.10.2002
Belgium	1.7.2003 (Flemish region), 1.1.2007 (Walloon and Brussels-Capital regions)	1.7.2003 (Flemish region), 1.1.2007 (Walloon and Brussels-Capital regions)
Bulgaria	1.7.2007	1.7.2007
Czech Republic	1.1.2006	1.1.2007
Finland	October 1998	Exemption
Greece	1.7.2007	15 November 2009 (derogation)
Italy	1.7.2007	1.1.2003
Lithuania	1.7.2007	1.7.2007
Slovak Republic	1.7.2007	1.7.2007

For the four countries in the electricity sector (Austria, Czech Republic, Finland and the Flemish region in Belgium) and the three countries in the gas sector (Austria, Italy and the Flemish region in Belgium) that were ahead of the European deadlines we now

consider two indicators of the effective level of competition: concentration ratios of suppliers and the percentage of households who switched supplier. If not indicated otherwise, data come from Annual Reports of the NRA.

Table 4.2 – Concentration ratios in electricity residential markets

Country	Active suppliers	Suppliers independent of DSOs	Top 3 suppliers' share (very small comm./household)
Austria	114	2	70%
Belgium (Flemish region)	17	6	95,52% (only households)
Czech Republic	+300	10	99%
Finland	70	8	33%

Table 4.3 – Concentration ratios in natural gas residential markets

Country	Suppliers independent of DSOs	Top 3 suppliers' share (very small comm./household)
Austria	6	99/100%
Belgium (Flemish region)	13	96,48% (access points)
Italy	123	47,3%

It can be noted that the level of concentration is generally high and new entrants face consistent difficulties in gaining significant market shares. In some cases (Finland in electricity and Italy in gas) there are many suppliers, but the markets are very fragmented: each firm acts as a monopolist in its geographic zone and doesn't try to invade other incumbents' markets. Because of limited competition, it doesn't come as a surprise that switching rates are generally low. The percentages are shown in the following table.

Table 4.4 – Switching rates in the electricity and gas residential markets

Country	Electricity	Gas
Austria	2,8%	1,6%
Belgium (Flemish region)	12% ⁴¹	23% ⁴²
Czech Republic	N.A.	-
Finland	11%	-
Italy	-	1%

What we want to do now is to clarify whether, besides other structural reasons, switching costs are one of the determinants of the low level of competition in retail energy markets. For the countries listed above we first describe the measures they adopted to ease the choice of a new supplier and then their effectiveness in reaching that objective.

4.2 Early liberalizations: Focus on partner countries

4.2.1 Austria

The low levels of switching in Austrian residential electricity and gas markets are a clear sign of the many problems that still persist six years after the completion of the liberalization process. Investigations conducted in 2004 by the Austrian Federal Competition Authority (BWB) in cooperation with the energy regulator Energie-Control GmbH and with the involvement of the Austrian Federal Cartel Prosecutor pointed out

⁴¹ This figure refers to the percentage of households that, according to the VREG Annual Report for 2006, chose a new entrant since the beginning of liberalization. According to CREG, *Rapport Annuel 2005 à la Commission Européenne*, 6 juillet 2006, p. 28, the total switching rate is 15,5%, but it is not clear whether this figure includes contracts with traditional suppliers. Other statistics on the switching rate of residential electricity customers are available on the website of the Flemish energy regulator (www.vreg.be).

⁴² This figure includes both residential consumers that switched to new entrants and those that switched to traditional suppliers. According to CREG, *Rapport Annuel 2005* cit., p. 43, the total switching rate is 13,75%.

that entry barriers and switching costs were the main causes of limited competition in residential markets.⁴³

As far as entry barriers are concerned, it was shown that new electricity suppliers must overcome a lot of difficulties before they can hope to make attractive offers to incumbents' clients. First of all, insufficient unbundling of network and supply functions allows vertically integrated firms to retain an advantage on the management of existing customers' data as well as of newly connecting ones'. This information is not easily available to new entrants.⁴⁴ Secondly, the large number of system operators and the existence of three control areas is a source of additional administrative costs for new entrants. Billing practices of system operators are neither uniform nor competition neutral. Moreover, alternative suppliers that do not have a large customer base and flexible generating capacity risk paying higher balancing costs than vertically integrated incumbents. Thirdly, the customer transfer process is often expensive and time-consuming. According to the standardised administrative procedure introduced by E-Control market rules, the transfer may not take more than three weeks. However, electronic information exchange is still missing and noncooperative behaviour by incumbents has been reported.

On the demand side, BWB investigation points out that in February 2005 residential electricity consumers switching to the lowest-cost supplier could save between 15 and 31% on the energy price. In the gas sector savings of 10% could be achieved in the first two post-liberalization years. Despite such opportunities, decreasing switching rates were documented, with some consumers even switching back to incumbents.⁴⁵ Various motives explain the unwillingness of most residential consumers to change supplier. The most important is the lack of transparency in the pricing policies of energy firms. All-inclusive prices, in which the energy price is not stated separately from transport

⁴³ See BWB (2004 and 2005a, b). See also E-CONTROL, *Report to the European Commission 2005*, p. 38f., and E-CONTROL, *Annual Report 2006*, p. 22ff. The Final Reports on the Sector Inquiries into Electricity and Gas Markets were published in November 2006.

⁴⁴ The Gas Market Rules version 2 – August 2003, laid down by E-Control, provide now [sec. XXIV (6)] that “The distribution network operator must, if it has not already done so, assign a standard load profile to the network user and transmit this information, as well as the consumption data for the previous year, to the new supplier and/or balancing group representative.”

⁴⁵ EUROPEAN COMMISSION (2007, p. 165f.) points out that in 2004 over 95% of new Austrian electricity customers without previous connections, supposedly the class of customers least affected by switching costs, chose to contract with a supplier affiliated to a distributor.

charges, taxes and levies, are the most widespread type of offer, but they do not allow consumers to compare competing offers.

It must be noted that Austrian domestic consumers can use a number of tools deemed to reduce the costs of searching for alternative suppliers. A tariff calculator is available on E-Control's website. In its 2006 Annual report the energy regulator states that in that year about 750.000 calculations were made, 90% concerning domestic tariffs. In the same year almost 7.000 customers were regularly informed of changes in the tariff of their choice through the WatchDog service, also available on E-Control's website. Moreover, the energy regulator runs a hotline for consumer inquiries, receiving on average 400-500 calls every month.

The availability of a tariff calculator is one of the suggestions included in the ERGEG best practice proposition on supplier switching process.⁴⁶ Tough, it is clear that many Austrian consumers still find difficult to compare alternative offers. Strikingly, in 2004 one-third of all residential consumers said that they were unaware of the existence of alternative suppliers.⁴⁷

The commercial strategies of energy firms also contribute to reduce the willingness to switch. BWB investigations point out that incumbents recur to such strategies as rebates, fidelity schemes, bundling and tying. Advertising, too, is often employed to send misleading messages, to reinforce customer loyalty or to warn consumers against the risks of doorstep selling, in such a way precluding to new entrants the best channel to win new customers.⁴⁸

It must be stressed that, apart from some general rules on bill transparency, the Austrian regulatory framework did not provide for any specific measure aimed at reducing switching costs, but relied almost exclusively on general contract and consumer law. The findings of BWB investigations prompted E-Control to draw up a package of measures designed to reduce both entry barriers and switching costs. The Energy Security of Supply Act 2006, which entered into force on 1 January 2007, inserted sec. 45b-c in the Electricity Act of 1998. These provisions should help

⁴⁶ An alternative to the tariff calculator arranged by the regulator, the most widespread solution in Continental Europe, is the offer of price comparison services by private companies, whose activity is supervised by public institutions. See on this *The energywatch Confidence Code – A voluntary code of practice for price comparison services* (www.energywatch.org.uk).

⁴⁷ E-CONTROL, *Market Report 2004*, p. 99.

⁴⁸ See BWB (2005, p. 75ff.); E-CONTROL, *Market Report 2004*, p. 86ff..

customers to compare prices, because energy suppliers will have to itemise the different price components and explicitly state the actual energy price not only on invoices but also on all other documents such as contracts, offers and information material. Additionally, price increases have to be announced 3 months in advance. The same measures were implemented by the Natural Gas (Amendment) Act 2006.

Action was taken to speed up supplier transfers. In the electricity sector the amended Act empowers the Energy Control Commission to require system operators to state in their general terms and conditions the notice period for the electronic communication of the metering point code – the unique identifier for customer installations – to customers and their new suppliers. The same applies to the notice period for supplier transfers. Under an agreement between the regulator and the electricity companies, since 1 January 2007 an amendment to the Other Market Rules has made it sufficient to simply to state the customer's name and address when effecting a transfer.

4.2.2 Czech Republic⁴⁹

Only three vertically integrated companies that hold both a licence for electricity distribution (DSOs with more than 90,000 customers) and for electricity trading on the electricity market are currently operating on the Czech electricity market. So far, most eligible customers have been selecting the above companies as their electricity suppliers; the reasons are the relatively small number of active independent traders on the Czech market and the negligible differences in the supply prices offered. In the case of customers connected to the LV level (low-demand business customers and households), these three companies are the only electricity suppliers who regularly offer energy, as a product, to these low-demand categories. These three suppliers' electricity market share is more than 95% of final customers' total consumption in the Czech Republic; in the case of customers connected to the LV level their share is more than 99%.

⁴⁹ This paragraph draws on information reported in *The Czech Republic's National Report on the Electricity and Gas Industries for 2005*, July 2006, p. 19ff., and on *The 2005 Report of the Activities and Finances of the Energy Regulatory Office*, as well as on the answers to the questionnaire.

Several (about ten) more important traders independent of regional distributors also operate on the market; their total market share is currently only up to a few per cent of eligible customers' total consumption. So far, these suppliers have been offering electricity bought from smaller generators or imported from other countries mainly to large industrial customers. The reason has been the gradual opening of the Czech electricity market. Going forward, these suppliers' share in the low-demand customers and households segment can be expected to grow. As at 31 May 2006 the total number of electricity trading licences issued in the Czech Republic was 273; however, most of the licensed traders are not active, or their share of the domestic market is negligible.

In connection with the market opening to households on 1 January 2006, as many as 3,164 entities switched their suppliers over the first quarter of 2006 (business and household customers). According to Operátor trhu s elektřinou, a.s. approximately 0.25% customers connected to LV and 3.3% of customers connected to HV and EHV switched their energy supplier in 2005.

In comparison with 2005 the increase in the price of electricity supply (commodity + distribution and related services) to households, averaged across the Czech Republic, is 9%. This increase is attributable mainly to the price of energy on the wholesale market, which is more than 15% higher. The increases in electricity prices to individual customers connected to the low voltage level differ by the region, the tariff selected, and nature and size of demand.

As regards the option of electricity supplier switching, eligible customers may choose their suppliers of energy, and the choice is free of charge. However, the physical transport of electricity takes place through the distribution or, as applicable, transmission system to which the customer is connected. For this reason an eligible customer usually has two contracts in place, i.e. one agreement on distribution/transmission and one agreement on electricity supply. The distribution agreement is executed between the final customer and the respective operator of the distribution/transmission system to which the customer is connected. These agreements are usually signed in perpetuity (they apply for as long as the taking of electricity lasts), and supplier switching does not affect them. The supply agreement is executed between the final customer and his electricity supplier, i.e. an entity holding an electricity generation licence or an electricity trading licence. Electricity customers can also enter

into a single aggregate agreement with their electricity suppliers (referred to as agreement on bundled services), which contains the supplier's obligation to arrange for electricity transport to the customer in addition to electricity supply. The terms and conditions governing the supply and billing of electricity, as well as the terms and conditions governing contract termination (including the relevant time limits and potential penalisation) are subject to a contractual relationship entered into under the Commercial Code.

Public Notice No. 541/2005 on the electricity market rules, principles of pricing the electricity market operator's activities and the implementation of certain other provisions of the Energy Act, lays down the rules and obligations for the various market participants (final customers, electricity suppliers, DSOs, TSO, market operator); for supplier switching, the sequence of the steps to be taken and the applicable time limits are set out. The overall supplier switching process has been shortened and currently may not be longer than 17 business days (i.e. 23 calendar days) from the moment the customer files an application for supplier change. No fees are charged to the customer for such supplier switching. Finally, more precise provisions were laid down on the billing of electricity supplies to eligible customers, including the extent of the items in the invoice, with a view to informing customers about the structure of the resulting payment for electricity.

4.2.3 Flemish Region

The high switching rate in this part of Belgium testifies to the success of the liberalization process in the domestic markets.⁵⁰ However, the initial stage was not without problems. A report commissioned by CREG to London Economics showed the presence of many entry barriers in the generation, trading and supply segments. With specific reference to the supply segment, the report pointed out that incumbent suppliers slowed the switching process and refused to deliver metering and consumption data.

⁵⁰ The VREG published on August 31, 2006 a comparison of residential prices in the Flemish and the Walloon Regions. In the former the switch to an electricity supplier different from the standard one is worth a saving of 15% or 200 euros less than in the latter. In the gas market the differences are less apparent, but Flemish households save almost 120 euros on average.

Moreover, the designation of incumbent suppliers as default suppliers reinforced their dominant position.⁵¹

Specific rules aimed at increasing transparency and reducing switching costs were later introduced. The most important measure was the agreement proposed in 2004 by the federal Minister of Industry to all electricity and gas suppliers. It includes rules of conduct on price transparency, marketing and selling practices, the procedure for changing supplier, fair and balanced general terms, information to be delivered to the consumer, payment methods and complaints handling procedures. Annexed to the agreement is a code of conduct on doorstep and distance selling.⁵²

The Belgian agreement contains interesting solutions to the problems discussed in this chapter. For example, the new supplier can be charged with the task of terminating the old contract and paying any connected expenses in place of the consumer. Being relieved of any liability, the consumer should be more willing to switch to the new supplier. Moreover, price transparency is enhanced by asking each supplier to insert a tariff calculator on its website.⁵³ The same information must be available to consumers free of charge through other means of communication.

It could be useful to recall the provisions introduced in the Walloon Region to help residential consumers to choose a new supplier from 1st January 2007.⁵⁴ The supplier of last resort must send all captive consumers a communication explaining the new opportunities available after that date. This measure allowed all residential customers to become aware of the possibility to switch supplier soon after the opening of retail

⁵¹ LONDON ECONOMICS, *Structure and Functioning of the Electricity Market in Belgium in a European Perspective*, October 2004 (www.creg.be).

⁵² The text of the agreement is available at <http://mineco.fgov.be>. It applies to suppliers but not to distributors that supply electricity to residential consumers. Moreover, only those suppliers that voluntarily subscribe to the agreement (eight so far) are bound to follow it. Some problems with aggressive sale tactics were noticed before the agreement entered in force: see *Fourniture d'énergie: contrats plus équilibrés s.v.p.!* (Budget&Droits n° 176, septembre-octobre 2004) (www.test-achats.be). The same Belgian consumer magazine points out that electricity suppliers do not always comply with the agreement: see *Les fournisseurs d'énergie et leurs conditions*, Budget&Droits n° 190, Janvier 2007. It must be noted that EUROPEAN COMMISSION (2007, p. 166f.) reported concerns of Belgian suppliers about insufficient compliance with the statutory deadlines of the switching procedure and discriminatory conduct of network operators.

⁵³ Tariff calculators are also available on the websites of the three regional energy regulators, as well as at www.monenergie.be and www.test-achats.be (registered users only).

⁵⁴ Arrêté du Gouvernement wallon 11 March 2006 relatif aux clients éligibles au 1er janvier 2007 dans les marchés de l'électricité et du gaz.

markets.⁵⁵ At the same time, the Walloon government asked distributors to send all residential customers the information needed to compare alternative offers and change supplier, that is the European Article Number for the unique identification of the access point, the synthetic charge profile and the estimated annual consumption. Moreover, to overcome the resistance of vertically integrated incumbents against new entrants, the distributors had to send each supplier all data they needed to conclude a contract, that is the EAN code, the meter number and the complete address of the access point for each captive customer. All data had to be provided in electronic format.⁵⁶

4.2.4 Finland

In the electricity residential market there are striking differences among the prices offered by each supplier. This means that there are consistent savings available for consumers who switch.⁵⁷ However, only a few residential consumers do switch. Various reasons have been advanced to explain the inertia of Finnish consumers. One important factor seems to be the attitude of the Energy Market Authority (EMV) toward the competitive sectors of the electricity industry. Until the 2004 amendments to the Electricity Market Act implementing the second electricity directive, EMV had general supervisory powers on the retail supply market, but its mandate did not include a more specific task to support competition through focused interventions. Deregulation was supposed to foster competition almost automatically.

Reality shows how misguided was such assessment. None of the conditions required to increase residential consumers' activity were present in the Finnish retail electricity market.⁵⁸ On the demand side, most consumers display a limited awareness of alternative opportunities, do not have a clear idea of the consequences of competition, think it is difficult to acquire information and compare the offers of different suppliers. On the supply side, electricity companies tried to retain their pre-

⁵⁵ In the Flemish Region VREG developed an advertising campaign through complementary channels: see ERGEG, *Customer Information Handbook – A review of Good Practices*, 6 December 2006, 18.

⁵⁶ The Walloon regulator reports that, as of January 1^o, 2007, 5,9% of electricity consumers and 5,2% of gas consumers switched to a new supplier: see CWAPE, *Rapport CD-7a16-CWaPE*, 18 janvier 2007.

⁵⁷ According to the presentation made by P.E. LEWIS (2006), as of February 2004 the gap between the lowest and the highest price in the residential market amounts to € 360 per year. As far as savings are concerned, P.E. LEWIS et alii (2004, p. 46) estimate that, depending on various assumptions, they could be between € 223 and 410.

⁵⁸ See LEWIS et alii (2004); NORDREG (2005).

deregulation market share and did not use aggressive marketing tactics to reach new consumers. Moreover, until the 2004 amendments they were authorised to charge fees for meter reading upon switching. Other problems concern the electronic exchange of information in connection with supplier switching. Whilst such exchange is recommended by the Finnish Energy Industries association, its performance is sometimes poor and some network operators keep on using old methods as telephone and fax.⁵⁹ Price comparison sites have been offered by private operators, but they do not seem to warrant the regular updating, comprehensiveness and independence that are needed to become a reliable source of information. There are even suspects of manipulation of consumers' preferences by suppliers. They tried to convince the general public that price rises were unavoidable and that, compared to other European countries, Finnish consumers had a good deal. Such messages are clearly meant to discourage active search of better offers.

The 2004 amendments to the Electricity Market Act tried to remedy most of the above mentioned shortcomings. Sec. 15a forbids the collection of separate fees when the customer changes supplier. According to sec. 21, dominant retailers shall make publicly available their prices. They shall not include conditions that would restrict competition. Section 23 introduces new provisions on billing transparency.

Meanwhile, EMV implemented a price comparison system on its website.⁶⁰ Almost all electricity retailers registered as system users. Approx. 45 electricity companies use the online service frequently to send quotations for electric energy to customers outside their areas of operation. Electricity users started to use the service right away. By March 2007, more than 1.5 million searches had been made within the IT system, which means that several hundreds of thousands of people have visited the web site.

Moreover, an on-line market place is offered by Vaihtovirta.fi, which is an independent service provider whose services are open to all electricity users. The retailers may make offers through the service and the customers may also empower the Vaihtovirta.fi to make their electricity retail contract with the chosen retailer. The

⁵⁹ ERGEG (2005b, p. 34) also notes that suppliers are charged the costs of electronic information management. These costs can be so high to make it unprofitable for suppliers to take only one or a few new suppliers outside they own obligation to supply area. This problem reduces the alternatives available to consumers.

⁶⁰ The online service was opened on the web site of the Energy Market Authority on 3 February 2006, at the address www.sahkonhinta.fi.

benefit of this service for customers is that they are able to ask for commercial offers from many retailers at the same place.

Most of the new measures accord with the best practice proposition for supplier switching process advanced by ERGEG. However, information exchange was not regulated and marketing practices of electricity suppliers are only controlled through the general provisions of the Consumer Protection Act. Time will tell whether the 2004 amendments can foster competition in the residential electricity market.⁶¹

4.2.5 Italy

Although the gas residential market was liberalized since 1° January 2003, up until the end of 2005 only a handful of consumers changed supplier. According to data collected by Aeg, the Italian energy regulator, from 1° January 2003 to 1° June 2005, only 0,6% of consumers with annual consumption below 5.000 cubic metres changed supplier. For consumers with annual consumption between 5.000 and 200.000 cm the cumulative switching rate was 3,6%.⁶² Although in some parts of Italy (especially Northern regions and the biggest cities) many customers changed supplier, the general evaluation seems to be that in the residential gas market competition is almost completely absent.

On the supply side, more than 60% of suppliers limit their activity to one region. This means that alternative offers are seldom available. Moreover, residential consumers who change suppliers can save modest amounts. For annual consumptions of 5.000 cm savings are on average 36,5 Euros/year.

A follow-up inquiry conducted by Aeg and published at the end of 2006 reaches the same conclusions. In 2005 the switching rate for consumers with consumption below 5000 mc is 1,09% (more than 155.000 clients). However, if we exclude those consumers that switched to one large supplier, the switching rate for 2005 goes down to 0,24%. More switching is reported for higher consumption levels. On the supply side,

⁶¹ Switching rates up to November 2005 remain low. See the graphs on www.peace.com/customer-switching.

⁶² See Aeg dec. n. 31/06 and Annex A (www.autorita.energia.it), as well as AEEG, *Annual Report 2006*, p. 93ff..

market segmentation, with most suppliers active in one or few contiguous geographic areas, is still the dominant characteristic.⁶³

Surveys conducted on behalf of Aeeg and by the Italian Institute of Statistics (Istat) point out the motives that induce residential consumers not to switch. About 70% of a representative sample of Italian families did not know of the possibility to change supplier. Among those that were informed, 25% did not receive any alternative offer. Relevant factors were also the loyalty to the historical local supplier, the limited savings available, the difficulty to judge the benefits of switching, the fear of quality deterioration. It must be added that marketing strategies (for the competitive acquisition of customers in new areas) are primarily focused on medium to large customers. Sometimes they are defensive tools aimed at stopping entry by new competitors.

The most recent inquiry conducted by Aeeg also revealed many unfair commercial practices that erected barriers to entry of new suppliers or discouraged switching. Advertising messages are often deceptive, do not specify the discount offered and propose pejorative contractual conditions. Switching procedures are often delayed or blocked without legitimate reasons. Complaints about double billing and penalties paid in the switching period were sent to the energy regulator. High meter reading costs are an additional barrier to entry for suppliers not connected to distributors.

This sorry state of affairs is partly explained by limited competition in the wholesale gas market. Because of the difficulties they face in purchasing natural gas at cheaper prices, suppliers prefer to sell in one or a limited number of regions where they act as monopolists. The resulting segmentation moves retail markets away from anything resembling competition. However, it must be added that Aeeg can be blamed for having delayed the implementation of measures needed to reduce entry barriers and help residential consumers to choose. Such measures include the regulation of the contractual relationship between the supplier and her customers, the switching procedure and the spreading of information.

As far as the contractual relationship is concerned, in 2004 Aeeg introduced the commercial code for the supply of gas, but it became binding only at the end of the same year, that is, almost two years after the opening of the residential market.⁶⁴ The

⁶³ See Aeeg dec. n. 135/06 and Annex A.

⁶⁴ See Aeeg dec. n. 126/04 and subsequent amendments. An early and much less detailed version of the commercial code was introduced by Aeeg dec. n. 237/00 before the opening of the residential market. The

commercial code regulates the pre-contractual phase, requesting the suppliers to communicate with the consumers through a specific format aimed at simplifying the comparability of offers. Moreover, the code regulates marketing practices, the terms to be included in each contract and the procedure for their modification, consumers' termination rights and automatic refunds in case of breach by the supplier.⁶⁵ AeeG also issued regulations warranting gas bill transparency.⁶⁶

Switching procedures are included both in the code for the national gas transport network and in the code for the local gas distribution network. The first one was regulated in 2002, the second one in 2004.⁶⁷ At the distribution network level, AeeG's principal objective was to build a uniform framework for the hundreds of distributors active across the country. Different rules for each network increase administrative costs for new entrants and could reduce competition. However, in this case, too, the implementation of a uniform distribution code has been delayed for a long time. The final version of the model code was adopted in June 2006.⁶⁸ Therefore, different rules have been applied by distributors long after the complete opening of the residential market. Meanwhile, various amendments have been introduced to simplify the switching procedure. Notice that no electronic information exchange platform has been agreed on.⁶⁹ As noted above, Italian gas suppliers sometimes ask consumers to pay

commercial code for electricity supply was introduced by AeeG dec. n. 105/06 and entered into force for eligible clients from 1st January 2007.

⁶⁵ For a more detailed description see AEEG, *Annual Report 2005*, p. 68f..

⁶⁶ See AeeG dec. n. 42/99. For electricity bill transparency see AeeG dec. n. 55/00, replaced by AeeG dec. n. 152/06. The new guidelines provide that the electricity bill must contain two distinct sections for the presentation of data (a simplified section and a detailed section), as well as additional information concerning the type of consumption. It is also envisaged that at least once a year customers should be informed of the mix of sources used in electricity production in Italy. It is interesting to note that AeeG is willing to enforce aggressively the rules on bill transparency: at the beginning of 2007 the former monopolist Enel was fined with 11.700.000 Euros because it did not comply with the duty to communicate to its clients at least one free payment modality: see AeeG dec. n. 66/07.

⁶⁷ See respectively AeeG dec. n. 137/02 and n. 138/04.

⁶⁸ See AeeG dec. n. 108/06. At the end of 2006 almost all gas distributors had already adopted the model code.

⁶⁹ But see AeeG dec. n. 294/06, which established the binding national communication standard to be adopted in communications between companies operating in the gas sector. According to the energy regulator, the provision aims at rationalising and standardising information flows between about 390 natural gas sellers and 430 local distributors, in order to provide greater protection for consumers by introducing simple, innovative channels of communication between operators. The new national standard should encourage: (1) respect for the maximum timescales set by the Authority for the commercial services most often requested (such as connections or activation of gas supplies); (2) the entry of new competitors in the sale of gas; (3) changes of supplier by consumers (switching); and (4) the promotion of technological innovation in the exchange of information. With effect from 1^o July 2007, information concerning requests for commercial services or supplier switching will be exchanged – by gas

freely determined charges when they switch suppliers and when they terminate the contractual relationship (e.g. for meter reading). Such charges are clearly incompatible with Annex A of the second gas directive, stating that the change of supplier must be completely free.

Another factor affecting the low level of switching is the lack of easily accessible information. Although Aeeg publishes the economic conditions on its website, they are not described in a user-friendly manner and do not allow for a comparison among suppliers. Consumers can search for information browsing the suppliers' websites or contacting their call centers, but such strategies multiply search costs.

4.3 Evaluation

The description of the experiences of some pioneer countries shows that, when retail markets were opened to residential consumers, the needed institutional infrastructure was not put in place. With the exception of the Flemish region, the low levels of active participation on the demand side and the high levels of concentration on the supply side can be traced back to the lack of regulatory measures that reduce search costs, switching costs and entry barriers.

As far as search and switching costs are concerned, relying on general consumer law does not seem to be a fruitful strategy. Numerous factors foster consumers' inertia. Therefore, their active participation depends on more specific measures aimed at reducing the cognitive efforts they must face in the new competitive scenario. Moreover, we noted in chapter one that energy companies are interested in raising search costs and making it difficult for consumers to compare alternative offers. ERGEG best practice propositions and Eurelectric Guidelines for Customer Switching are first steps toward the harmonisation of the different systems adopted in Member Countries. However, it is submitted that more attention should be paid to the heuristics residential consumers employ when comparing alternative offers. From this point of view, the way information is communicated by firms and regulators, as well as the

distributors, wholesalers and sellers – by “certified e-mail”, with a consequent reduction in all other types of communication (letters, faxes etc). Gas distributors will, however, have the option of using more advanced internet-based or “application to application” systems; distributors will be required to make these available in a non-discriminatory manner to all users of the service with effect from 1^o October 2008.

contractual terms concerning the beginning and the end of the commercial relationship with the supplier, carry more weight than is generally supposed. Moreover, stricter sanctions should apply to deter incumbents from delaying or hampering switching procedures. For example, specific performance standards could be set that provide for financial penalties to be paid to the consumer if the transfer to the new supplier is completed beyond the time limit.

Entry barriers are the other side of the coin. Economics literature is increasingly supporting legal unbundling of distribution and retailing as the only measure able to stop cross-subsidies and difficult to detect strategic behaviour against new entrants.⁷⁰ Besides structural measures, it is clear that successful retail markets presuppose efficient solutions for information exchange and switching procedures. Timing, too, is of fundamental importance. It is useless to anticipate opening if the institutional infrastructure is not ready to work.

In its January 2007 communication the European Commission says that the Unfair Practices Directive puts in place a robust framework for addressing issues of misleading marketing and selling strategies. However, even though all Member States will implement it without delay, it is highly plausible that both the national courts and the European Court of Justice will spend many years trying to fix the meaning of such general terms as professional diligence or material distortion of the economic behaviour of consumers.⁷¹ Residential energy markets need more specific measures, to be adopted as quickly as possible. The experience of early liberalizations shows that the failure of competition in retail markets could be avoided if the following solutions are implemented:

- a) a code of commercial practice that regulates the precontractual phase. NRAs should try to enhance the comparability of offers and to discourage energy firms from creating unnecessary complexity in their offers. Belgium and Italy provide useful examples.

⁷⁰ In its communication on the *Prospects for the internal gas and electricity market*, SEC (2006) 841 fin., 10 January 2007, the European Commission said that, to enhance competitiveness, full ownership unbundling and Independent System Operators were the two options to explore to provide the right incentives to network operators. ERGEG, too, suggested that ownership unbundling would be the preferred approach: see *ERGEG's Assessment of the Development of the European Energy Market 2006*, 6 December 2006, 6f.

⁷¹ See, e.g., the critical remarks by GOMEZ (2006).

b) a voluntary code of practice for advertising and marketing activities sponsored by NRAs. Specifying the general principles laid down in the unfair commercial practice directive could help NRAs to monitor the behaviour of energy firms;

c) guidelines by the European Commission or by ERGEG on practices widely used in the energy sector like fidelity programs, rebates and tying clauses. Because the validity of such clauses depends on complex assessments that must balance various factors, it could be useful to set up a common starting point at the European level. This measure could be justified on two counts: first, it avoids replicating the same assessment in each national regulatory system; second, it avoids the risk of contrasting judgements at national level.⁷²

⁷² Improving the minimum level of information available to citizens, reduce red tape when customers change supplier and protect customers from unfair selling practices are among the contents of the forthcoming Energy Customers' Charter proposed in the Communication by the European Commission on *Prospects for the Internal Gas and Electricity Market*, 10 January 2007, COM (2006) 841 fin., 21. According to ERGEG (2006e), 12f., NRAs should be able to impose rules on marketing of services to household and rules relating to the switching process.

5. The regulatory systems in partner countries

This chapter addresses two issues: firstly, how roles and competencies in the field of energy consumers protection are distributed among public and private institutions; secondly, which regulatory powers such institutions can use to discharge their duties. Our aim is to verify whether the choice of the regulatory structure impacts on the efficiency and efficacy of the measures that should protect energy consumers.

5.1 The institutions of energy consumers representation

Energy laws of all partner countries include consumers protection among the objectives of the regulatory framework. However, significant differences can be detected in the institutional solutions aimed at its implementation. Partner countries employed four models of consumers representation:

- 5) The powers are shared among NRAs and Government authorities
- 6) All the powers are attributed to the NRA
- 7) Some or all the powers are attributed to a specialized consumer body
- 8) Some or all the powers are attributed to a general consumer body

The following table summarizes the situation. A more detailed description is proposed thereafter.

Table 5.1 – Energy Consumers representation – Institutional solutions

Country	NRA/Government	Specialized Consumer Body	General Consumer Body
Austria	E-Control GmbH and E-Control Kommission	-	-
Belgium	VREG, CWAPE, BRUGEL, CREG, Fed. Gov.	Comité Energie (Walloon Region), Cons. Usagers elec. Gaz (Brussels-Cap. Reg.)	-
Bulgaria	SEWRC, Min. Energy	-	-
Czech Republic	ERO	Advisory Corps	-
Finland	EMV	-	Cons. Complaint Board, Fin. Cons. Agency
Greece	RAE	Settlement Body for metering disputes in the gas sector	Consumer Ombudsman, Body for consumer protection of pub. serv. companies
Italy	Aeeg, Government	-	Chambers of commerce
Lithuania	NCC, State Energy Insp., Government	-	NVTAT
Slovak Republic	URSO, Min. Economy	-	-

Most partner countries decided to give NRAs or other public authorities the power to represent energy consumers' interests. Four partner countries (Finland, Greece, Italy and Lithuania) gave representation powers (in the field of dispute resolution) to general

consumer bodies. In other two partner countries (Belgium and the Czech Republic) advisory committees were introduced that included consumers representatives, together with representatives of the industry, the trade unions and other public authorities.

The most important aspect emerging from this survey is the constant involvement of governmental authorities in the regulatory tasks directly related to consumers protection. Of course, the political, social and economic salience of such services as electricity and gas supply explains why public authorities rarely dismiss any power of intervention in these fields. Moreover, in many partner countries public ownership of energy companies is still widespread. Another interesting feature of the national regulatory systems is the amount of funds specifically devoted to consumer issues. From this point of view, there are manifest differences across Europe. In the UK Energywatch has 216 employees in the customer information service units, but they are only 7.5 in Austria, 6 in the Flemish Region and Italy.⁷³

5.2 Energy consumers representation and regulatory powers

To assess advantages and shortcomings of each solution we need a more detailed description of the powers granted to the various institutions. For expositional clarity we distinguish four categories of regulatory powers:

- e) advisory powers: the institution can only make proposals to other authorities
- f) rule-making power: the institution can independently enact binding rules for energy firms
- g) enforcement powers: the institution can independently detect violations and decide the appropriate injunctive or punitive measures (usually subject to judicial review)
- h) dispute resolution powers: the institution can settle disputes between energy firms or between energy firms and their customers

The table below summarizes the distribution of regulatory powers among the institutions of the partner countries.

⁷³ ERGEG, *Customer Information Handbook – A review of Good Practices*, 6 December 2006, 36.

Table 5.2 – Energy consumers representation – distribution of regulatory powers

Country	Advisory	Rule-making	Enforcement	Disp. res.
Austria		NRA	NRA	NRA
Belgium	NRA/SCB	GOV	NRA	NRA/GOV
Bulgaria	NRA	GOV	NRA	NRA
Czech Rep.	SCB	NRA		NRA
Finland		NRA	NRA	GCB
Greece	NRA	GOV	NRA	NRA
Italy		NRA/GOV	NRA	NRA
Lithuania		NRA/GOV	NRA/GOV	NRA/GOV
Slovak Rep.		NRA/GOV	NRA/GOV	NRA

Abbreviations: NRA (National Regulatory Authority) – GOV (Governmental Authority) – SCB (Specialized Consumer Body) – GCB (General Consumer Body)

Only in Belgium, Bulgaria and Greece sector regulators can exercise advisory powers, while formal rule-making powers were given to the competent Ministry. However, in Bulgaria it is suggested that the political authority usually accepts without significant modifications the proposals submitted by SEWRC. Because of the technical knowledge required to intervene in energy markets, we can safely assume that in other countries too the final decisions of the political authorities attach great weight to the opinions of the sector regulators.

The fact that in most partner countries NRAs and governmental authorities share rule-making powers leaves space to at least two interpretations. On one hand, it could be suggested that the direct involvement of political institutions warrants careful consideration of consumers' interests. On the other hand, it is equally plausible that governmental authorities give precedence to other interests, for example the maximization of the profits of energy firms under the control of the State.

The uncertainty on the consequences of direct governmental interventions in energy markets suggests that more attention should be devoted to an institutional solution adopted in a few partner countries, that is the appointment of an independent body charged with the exclusive task of representing consumers' interests. Its main advantage is the enhanced probability that energy regulation will be more favourable to consumers.⁷⁴

As we mentioned in chapter one, this solution too suffers of its own shortcomings. A consumer body would need access to relevant information, strong technical competencies and adequate resources. Moreover, means of coordinating its activities with those of NRA and other institutions should be provided. There is also a serious danger that the consumer body employs its powers to oppose competition and forestall any reform proposals.

So far, available evidence does not permit to establish the superiority of one institutional solution over anyone else. There are trade-offs involved that require careful consideration of the national legal and economic environment. What can be said beyond any doubt is that an excessive fragmentation of competencies among many authorities is a source of unnecessary costs. It enhances the probability of conflicts and raises the complexities of the regulatory process. Above all, the fragmentation of competencies increases information costs for consumers, who must search for the competent authority to address in case of complaints against suppliers. Moreover, it increases the risk of inadequate funding. From this point of view, there seems to be room for improvement in the Finnish, Greek and Lithuanian regulatory frameworks.

Other aspects of the distribution of regulatory powers are discussed in the chapter on dispute resolution procedures and on the role of consumer associations.

⁷⁴ Empirical evidence on the role of American public utility consumer advocates supports this view: see HOLBURN and SPILLER (2002); HOLBURN and VANDENBERGH (2006); FREMETH (2006). However, it must be underscored that these American institutions usually enjoy the power to participate to regulatory and legal hearings and are endowed with large financial resources. Consumer bodies in partner countries usually play a lesser role. For an assessment of the British experience, where the independent body energywatch was created in 2000, see SIMMONDS (2002); NAO (2004).

6. Econometric analysis of residential markets regulation

6.1 The field of regulation

Regulation analyses the institutional setups adopted to govern a market in which emergence of competition is hardly achievable.

Economic theory shows that free market institutions ensure the achievement of an efficient outcome, i.e., the one maximizing social welfare, in a certain set of circumstances. This striking result is derived from the two welfare theorems, which guarantee that, under an appropriate (in fact quite restrictive) set of assumptions, any market outcome is efficient.

One of the key assumptions is that the market under consideration displays a sufficient level of competition. While the paradigm of perfect competition, entailing a very large number of producers producing perfectly homogenous products, is not attainable in real markets, the issue is *how* far each market is with respect to that paradigm. According to the degree of potential competition of a market, we may in principle classify three types of industries:

- those in which there is a very large number of potential competitors; in these markets, there is no need of specific policy measures;
- those in which there is a limited number of competitors; in such markets, economists usually think that *ex post* regulation, in the form of antitrust enforcement, is needed in order to guarantee the preservation of the competitive playground;
- those in which the number of competitors is very small; in such markets, economists believe *ex ante* regulation is required, in the sense of a regulation imposing a conduct to the firm or designing a market structure able to generate the correct incentives for the market participants.

The difference between *ex ante* and *ex post* intervention is crucial for the identification of the realm of regulation and of its border with the field of competition economics.

Ex post intervention implies that a governmental agency checks *ex post* that free choices and strategies put in place by the relevant firms do not bear a negative effect on competition. If the agency envisages that some firms' decisions violate the competition law, either it forbids them, or it imposes remedies, aimed at mitigating the anti-competitive effects of the firms' decisions. A typical example of an agency performing *ex post* interventions is the antitrust authority.

Ex ante intervention, on the other hand, refers to the fact that the regulatory agency directly affects the choices of the regulated firm (for example, by imposing a cap on the price charged by the firm itself), or indirectly affects them by imposing a certain market structure within which various firms have to act.

Within this framework, the field of regulation analyzes forms of *ex ante* interventions in the market, and in particular, its object of study consists in the investigation of rules, institutions, and market arrangements aimed at curbing agents' behavior so as to increase economic performance.

6.2 Regulation and energy markets

Energy markets are necessarily heavily regulated.

Both electricity and gas, indeed, feature a multi-layer vertical structure, composed of production, transportation (transmission/distribution), and retail. As previously mentioned, transmission and distribution activities are regarded as natural monopolies, or, at best, as sectors in which competition is very hard to achieve, and situations market power prevail. From this observation, two sorts of problems are stemming:

- First, liberalizing these sectors is not possible; hence, when the energy market as a whole is liberalized, transmission and distribution must remain regulated;
- Second, the potential for exerting market power in the upstream sectors generates incentives for establishing market power even in the retail sectors. This is a relevant feature in terms of our analysis.

Indeed, suppose the transmission line owner/operator - also involved in the generation business, with a substantial share of the production plants - engages even in

the retail activity. By favoring its retail customers, it can *de facto* extend its dominant position even in the retail sector.

The just established arguments suggest a set of “competition” reasons that call for regulation of liberalized energy markets. However, competition is not the only concern; indeed, informational asymmetries (in particular for residential customers), and externality issues, which will be briefly discussed below, also may require some forms of policy interventions on the electricity sector.

The externality issue inherent in the retail sector, both in electricity and in gas, is due to the fact that, when supply is not sufficient to meet the entire demand, rationing has to occur on geographical basis rather than on economic basis (i.e., on consumers ranking based on the individual willingness to pay). Liberalization of the retail sector is not sufficient alone to take care of that externality.

6.3 Econometric regressions

The aim of the econometric section consists in measuring the effect of liberalization on prices paid by the residential customers. While price is not the only performance measure of a market, it is an important one, and furthermore it is relatively easy to identify. The available data on the liberalization process do not allow us to consider other performance measures, such as quality of service, or the degree of price volatility.

The purpose of the regressions is two-fold. First, we providing a quantitative assessment of how effective the liberalization process has been in terms of prices paid by the residential customers. Second, we identify the effects of different policy measure, of various forms of market structure, and of multiple institutional designs on post-liberalization prices for residential customers. Our aim is to identify, through the past experiences, the ingredients of an effective liberalization process in keeping prices as low as possible.

The economics literature recognizes four major approaches in assessing the impact of regulation and deregulation on prices. For the specific case of residential energy market deregulation, the first and perhaps most obvious approach is a direct

comparison between the regulated and the unregulated, or liberalized, outcome. In this case, we may proceed in two alternative fashions.

First, one could compare prices in countries where the market has already been liberalized to prices in countries where the liberalization has not taken place yet. This method provides a consistent measure of the impact of liberalization on prices if we assume that countries that adopted a liberalization process are randomly picked. Alternatively, one could consider, for a given country, a time series pre-and post liberalization. This method also provides a consistent (although possibly characterized by high variance, hence potentially not very significant) estimator of the effects of liberalization, provided that the countries that liberalized their market did not do so in anticipation of an increase in future prices.

Second, liberalization of retail energy markets happens through various stages: the initial ones, which involve only large industrial customers, the intermediate ones, involving all industrial customers, and the most advanced ones, involving all customers, both industrial and residential. One could then measure the impact of the different levels of intensity of liberalization on prices, differentiating between the different categories of customers.

Third, one could estimate a fully specified structural model of the retail energy sector, thereby characterizing the cost and the demand functions, and precisely identifying the impact of different market rules (including, obviously, the stage of liberalization, and the categories of customers involved in it), on the market outcome. If the underlying model is based on the correct assumptions, this approach provides us with the most precise characterization of welfare changes, in the sense that it allows us to discriminate between static and dynamic efficiency. However, two major drawbacks may potentially undermine the accuracy of its predictions. First, the estimation of such a model requires a substantial amount of data. Second, getting the assumptions of the structural model right is very complex; the risk of model misspecification is surely high, and that would lead to poor predictions.

Finally, the last available option consists in simulating the effects of liberalization under a given set of assumptions. In this case, the results obviously

crucially depend on the validity of the assumptions, and it then becomes extremely important to provide for an appropriate testing of the validity of those assumptions.

The analysis developed in this study will adopt the direct approach, combining a time series and a cross sectional study in a panel data analysis. Prices are used as the measure of performance of the market. The risk of model misspecification is here overcome by running a multiplicity of regression. If we are able to clearly pin down a pattern in the results, then the probability of poor predictions drastically reduces.

Average prices are then used to measure the outcome of the liberalization process. Available data on residential liberalization in Europe are as of now scanty, mostly because of the relative recentness of the phenomenon; hence we are not able to consider more sophisticated measures of market performance, such as, for instance, price variability and service quality.

6.4 Data

The analysis is based on the data referred to the nine partner countries. The following data sources have been employed:

1. the partners' questionnaires;
2. European Commission reports. In particular:
 - EU Benchmarking Reports, "Report on Progress in Creating the Internal Energy Market", Reports and Technical Annex for the years 2001, 2002 , 2003, 2004, 2005;
 - "Study on Unbundling of Electricity and Gas Transmission and Distribution System Operators";
3. Documents from the National Regulators and from the ERGEG;
4. Business Insight Reports. In particular:
 - The Eastern European Gas Market Outlook, 2006 and 2007;
 - The Eastern European Electricity Market Outlook 2006 and 2007;
5. Global Business Report;

6. Eurostat sources;

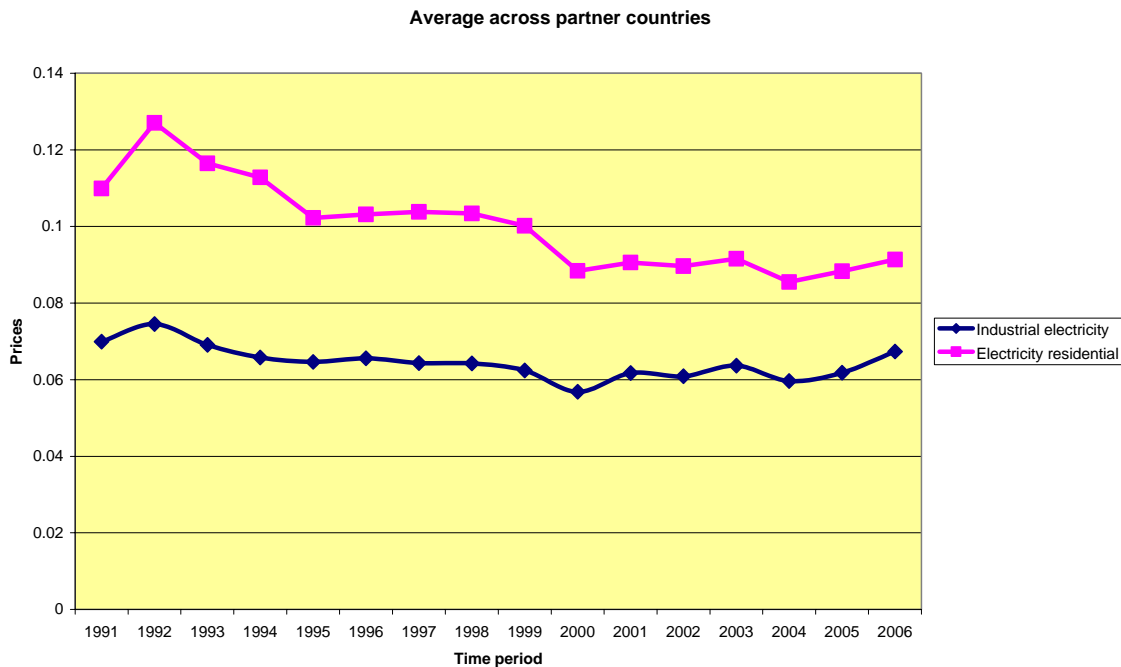
7. Foundation Eni-Enrico Mattei for State ownership of energy firms.

6.5 The regression models

6.5.1 Retail markets opening and prices

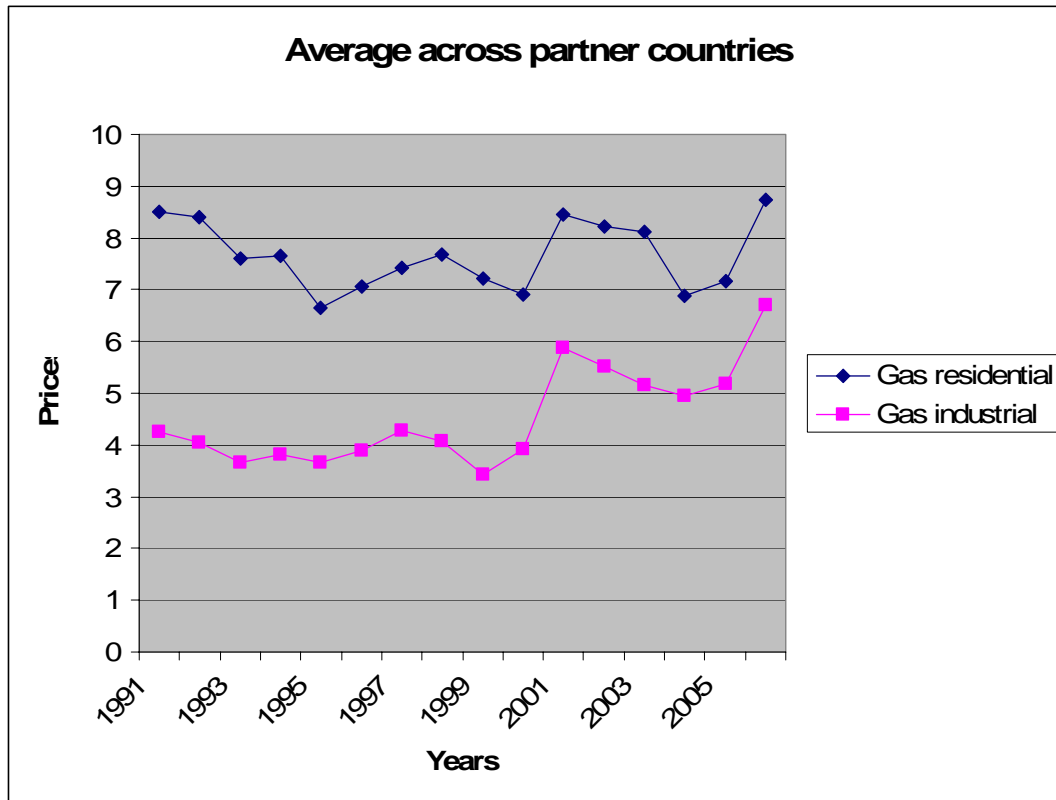
Graph 1 and 2 show the average trend of electricity and gas prices in the partner countries, and its variation between industrial and residential customers:

Graph 1: Average electricity prices (Eurocent/Kwh) across partner countries



Sources: Eurostat for member States countries (Austria, Belgium, Finland, Italy, Greece), KEMA (Report on Energy Prices in Eastern European Countries) for yet non-member States not included in Eurostat statistics (Bulgaria, Czech Republic, Lithuania, Slovakia), and questionnaires from partner countries. When detailed information on differences between industrial and residential prices were not available, the same price has been attributed to both categories.

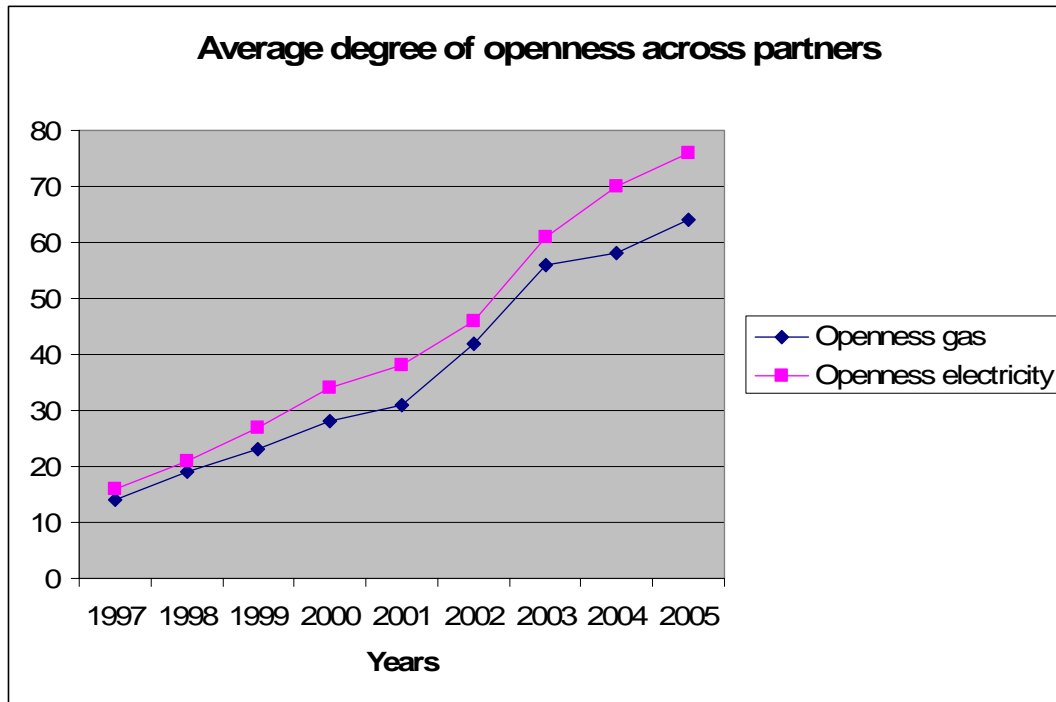
Graph 2: Average gas prices across partner countries



Sources: Eurostat for member States countries (Austria, Belgium, Finland, Italy, Greece), KEMA (Report on Energy Prices in Eastern European Countries) for yet non-member States not included in Eurostat statistics (Bulgaria, Czech Republic, Lithuania, Slovakia), and questionnaires from partner countries. When detailed information on differences between industrial and residential prices were not available, the same price has been attributed to both categories.

Graph 3 shows how retail market opening has evolved, on average across partner countries, across years. It shows that opening has been a gradual, yet continuous, process.

Graph 3: Average level of openness of the retail energy markets:



Sources: Eurostat, Eu Benchmarking Reports, Global Business Insights, Questionnaires to partners

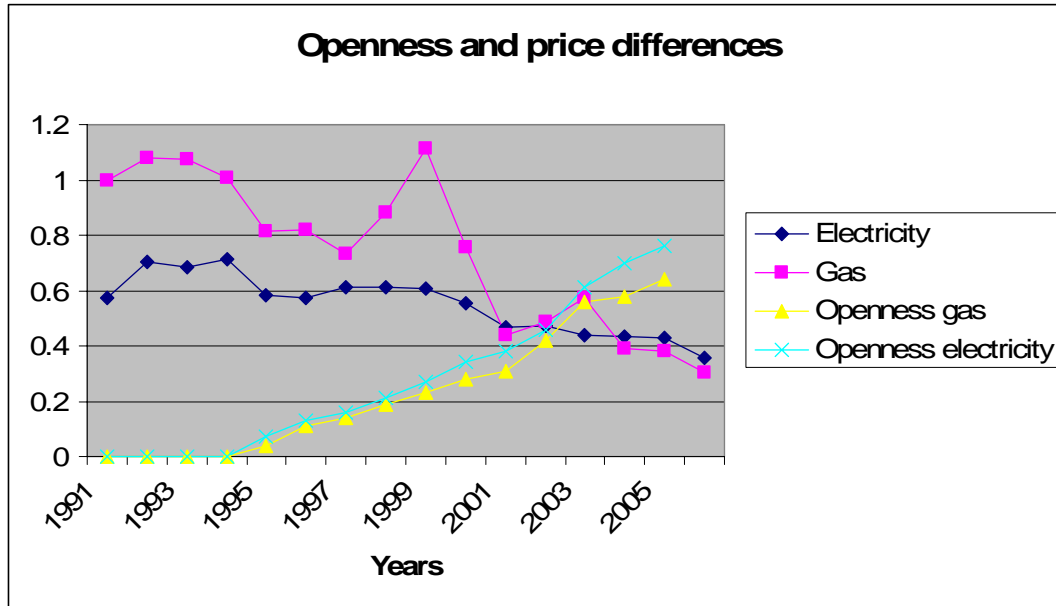
The previous three graphs suggest an interesting trend. As openness increases, the difference between residential and industrial prices tends to vanish. This trend is confirmed in Graph 4, which reports in the square purple line the average (at a European level) percentage difference between residential and industrial gas price, computed as:

$$\frac{P_{res,t}^{avg} - P_{ind,t}^{avg}}{P_{ind,t}^{avg}}$$

where $P_{res,t}^{avg}$ here indicates the average gas price paid by the residential

customers in the nine partner countries at time t , while $P_{ind,t}^{avg}$ indicates the average gas price paid by the industrial customers in the nine partner countries at time t . The blue line depicts the average difference between residential and industrial electricity prices, computed in the same way as for the gas prices. The yellow and the blue line refer to the average percentage of openness in the nine partner countries of the gas and electricity markets respectively.

Graph 4: Openness and price differences



Graph 4 also shows that the price difference tends at first to increase, with a small percentage of openness, and then to decrease when openness increases. Since a low degree of openness is associated to liberalization only for industrial customers (or for a portion of them), the graph hints to the possibility that, with a low degree of openness, firms – which are able to extract a lower profit from the industrial clients, as this liberalized market segment has become more competitive – tend to increase their margin in the residential segment. This interpretation will be further investigated in what follows.

The first regression explores the relation between observed prices for the residential customers and the stage of liberalization of involved countries. In this panel data model, we assume that liberalization is the only determinant of prices. While being extremely stylized, the model offers a first intuitive assessment of the outcome of the liberalization process for retail energy markets.

The econometric correlation is the following:

$$\Delta P_{t,i,j}^{res} = \beta_1 + \beta_2 I(libind)_{t,i,j} + \beta_3 I(libres)_{t,i,j} + \varepsilon_{t,i,j}$$

$$\Delta P_{t,i,j}^{res} = \frac{P_{t,i,j}^{res} - P_{t-1,i,j}^{res}}{P_{t-1,i,j}^{res}}$$

indicates the percentage difference in residential prices between time t and time $t-1$ in country i in market j (where j may be electricity or gas). $I(libind)_{t,i,j}$ is a dummy variable which takes the value 1 if more than 50% of industrial customers in country i at time t in market j are eligible, and 0 otherwise. $I(libres)_{t,i,j}$ is a dummy variable that takes the value 1 if the residential energy market in country i at time t in market j is liberalized, and 0 otherwise. While the 50% threshold value is arbitrary, it may be regarded as a reasonable proxy for market openness in the industrial sector.

t stretches from 1995 to 2005, i are the nine partner countries, and j are the two markets under consideration. The total number of 198 observations in the sample. Data are derived from the sources mentioned below the graph.

To wrap up, the regression is made using three comparison groups:

- countries that liberalized the retail electricity (or gas) market for both industrial and residential customers;
- countries that liberalized the retail electricity (or gas) market only for industrial customers;
- finally, countries that did not liberalize their retail energy market.

The results of the regression are presented in Table 1.

Table 1: Regression results

Parameters	Value of parameters	Test	Value of test
β_1	2.9%	R^2	34%
β_2	2.8%		
β_3	-4.7%		

The results of this regression show two phenomena worthwhile further investigation:

- liberalization of the residential energy market clearly helps. In countries which have adopted the liberalization process for the residential customers, the residential energy prices have been shown on average to increase less than in countries in which the liberalization process has not taken place. Mathematically, this results from the observation that $\beta_1 + \beta_2 + \beta_3 < \beta_1 \Rightarrow \beta_2 < \beta_3$;
- when only the industrial segment is liberalized, then the price for residential customers tends to increase not only more than when also the residential market is liberalized (mathematically, this emerges from the observation that $\beta_3 < 0$), but also more than when neither of the two markets is liberalized (mathematically, this stems from noting that $\beta_2 > 0$).

Two main pitfalls stand out in this regression. First, the 50% threshold is arbitrary. Second, since we are interested in the impact of retail energy market liberalization on prices, ideally we would like to isolate the retail component from the average price residential customers pay. In particular, the fact of considering the generation component in this regression generates an unnecessary increase of price variability, which reduces the precision of the results.

In order to improve on the last remark, the above regression has been modified

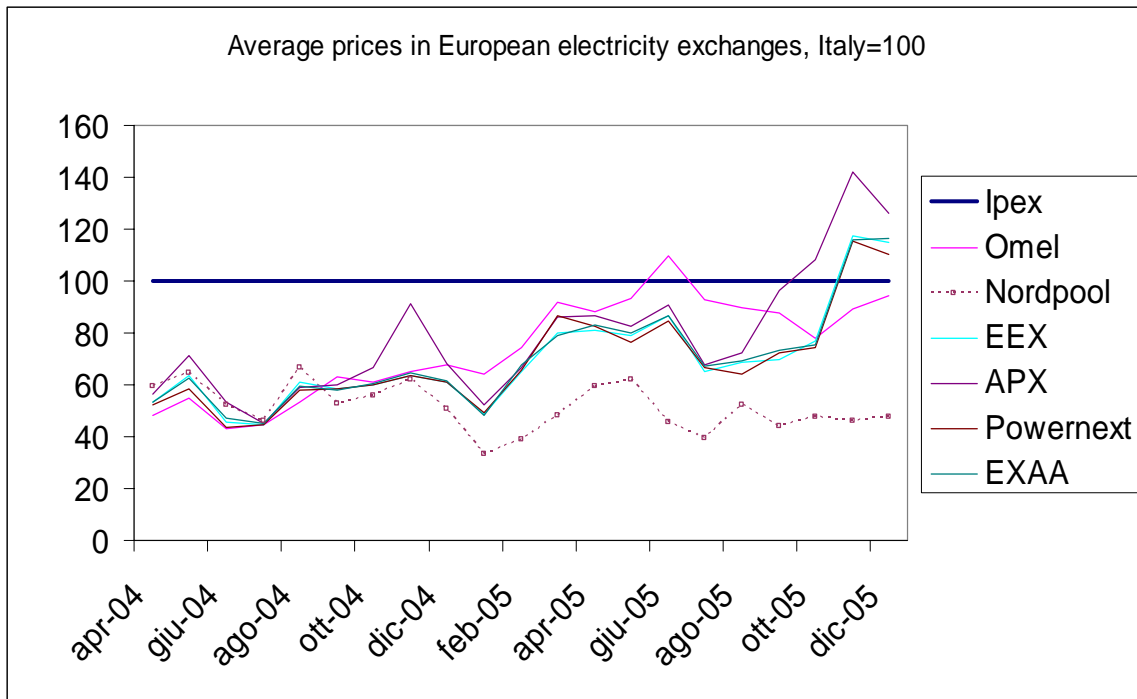
considering as dependent variable $\Delta(P_{t,i,j}^{res} - P_{t,i,j}^w) = \frac{(P_{t,i,j}^{res} - P_{t,i,j}^w) - (P_{t-1,i,j}^{res} - P_{t-1,i,j}^w)}{(P_{t-1,i,j}^{res} - P_{t-1,i,j}^w)}$, where

$P_{t,i,j}^w$ denotes the average wholesale prices in various years, $P_{t,i,j}^{res} - P_{t,i,j}^w$ indicates the extra price paid by residential customers beyond the wholesale price, and $\Delta(P_{t,i,j}^{res} - P_{t,i,j}^w)$ represents the yearly changes in the extra price paid by residential customers beyond the wholesale price. Such changes may be a good measure of the effects of retail prices.

Spot market prices, illustrated in Graph 6 for the electricity markets even in some non-partner countries as a matter of comparison, have been considered as proxies for

wholesale prices, and 2004 to 2006 data for markets in which a spot market exists have been employed.

Graph 6: Evolution of spot market prices in Europe:



Source: National TSOs

The results of the regression are not reported here, as they do essentially confirm those obtained in the first regression. The observation of a common pattern appears to strengthen the validity of the results.

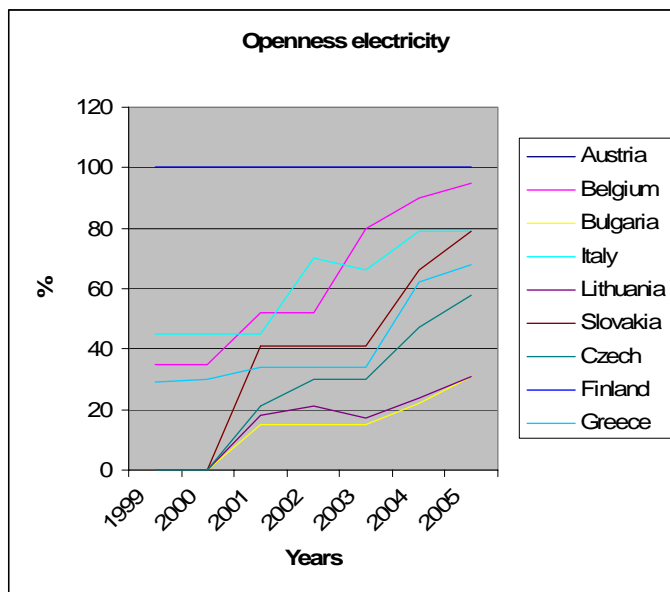
We now address the other problematic issue encountered in the first regression model, that is the representation of the liberalization process for industrial customers as a binary process, whereas the actual liberalization processes has been characterized by a more gradual transition, with an increasing number of eligible customers over the years. Hence, we now estimate a more flexible model, in which the degree of liberalization of retail markets for industrial users is considered as a continuous variable. In particular, we use the percentage of eligible customers as our covariate, and we estimate the following regression:

$$\Delta(P_{i,j}^{res}) = \beta_1 + \beta_2 \%(\text{libind})_{i,j} + \varepsilon_{i,j}$$

This regression focuses on the impact of industrial liberalization on residential prices. While the rest of the terms have exactly the same interpretation as in the previous regression, $\%(\text{libind})_{t,i,j}$ now indicates the percentage of industrial customers who can choose among different retailers at time t in country i in market j . For the observations of years, countries and markets in which the liberalization process for industrial customers had not started yet, the percentage takes, as expected, a null value. Because of data availability t now stretches from 1999 to 2005, i are the nine partner countries, and j are the two markets under consideration, for a total number of 126 observations in the sample.

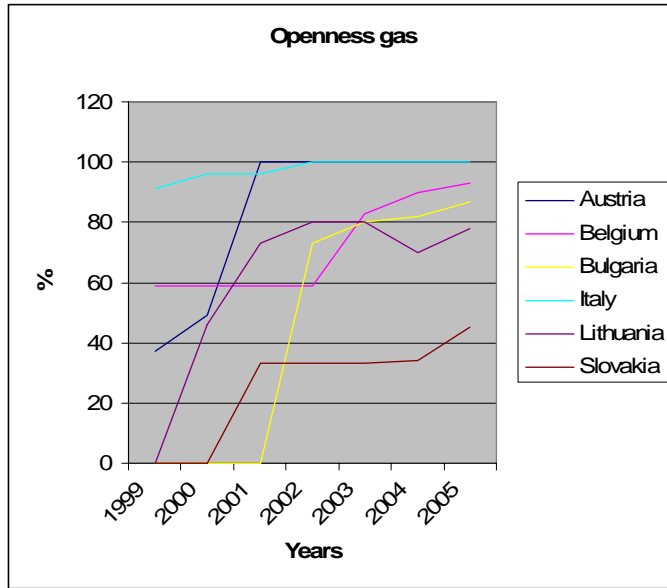
Data are derived by subtracting the proportion of residential customers to tables presented in Graph 7 and 8.

Graph 7: Openness in the electricity markets



Sources: Eurostat, EU Benchmarking Report, KEMA, Business Insight Eastern European Electricity Outlook 2005-2007

Graph 8: Openness in the gas market



Sources: Eurostat, EU Benchmarking Report, Business Insight Eastern European Gas Outlook 2005-2006

Results are presented in Table 2.

Table 2: Regression results

Parameter	Value of parameters	Test	Value of test
β_1	-4.1%	R^2	36%
β_2	0.023%		

The interpretation of the result is that there is a positive correlation between residential prices and the liberalization of the retail energy market for the industrial customers. The regression provides a further reinforcement to the result that, *ceteris paribus*, when only industrial customers and not the residential ones enjoy openness of the retail sector, consumers are worse off. In particular, on average, when the percentage of industrial customers for whom the market is liberalized grows by 1%, prices in the residential market increase by 0.023%.

The general point we can infer from examining these first regressions is that liberalization creates an asymmetry between the portion of customers interested by the

liberalization itself, and these customers who cannot enjoy its benefits. Hence, liberalization for residential customers become particularly beneficial and welfare enhancing, as it eliminates, or at least reduces, this asymmetry, thereby bridging the gap between the two types of customers.

The result is not an obvious one. It is therefore interesting to explore the economic rationale behind it. Amongst the possible explanations, a plausible one is the following. The energy market is not perfect, because of the forms of market power and externalities that inherently characterize it. Firms operating in the energy market tend to stick to self-imposed restrictions on prices, and on profit. This may in turn be determined by many reasons, including, in some cases, State ownership, or the fear of regulatory “retaliations” in case of too high prices, or, more generally, of a very much profit oriented firms’ behavior.

Such constraints implicitly pin down target values of profit and of return of capital. When liberalization affects only industrial customers, while prices for residential customers are still regulated, competition drives prices charged to industrial customers down. In order to balance this relative loss in the light of their profit target, firms have to charge higher prices to residential customers. This rationalizes the surge in prices. If this interpretation is correct, it remains unclear what happens once both markets – residential and industrial – are liberalized. If firms, before liberalization, were adopting a self-restrained behavior, they could preserve the same rate of return on capital after liberalization by relaxing the self-imposed constraints (intuitively, the self-imposed constraint would, after liberalization, be imposed by the market, at least partially). If, on the other hand, the self-restraint behavior before liberalization was not very relevant, then liberalization may turn out to be price-reducing.

6.5.2 Upstream market structure

After assessing the positive impact of liberalization, we now examine how various policy measures have affected the outcome of the liberalization process, as measured by prices.

We estimate a set of regression using available data on prices, market structure, and regulatory institutions, in order to attempt to assess the direction and the significance of the above mentioned effects.

We start by investigating the impact of upstream concentration on residential prices. We estimate the following regression model:

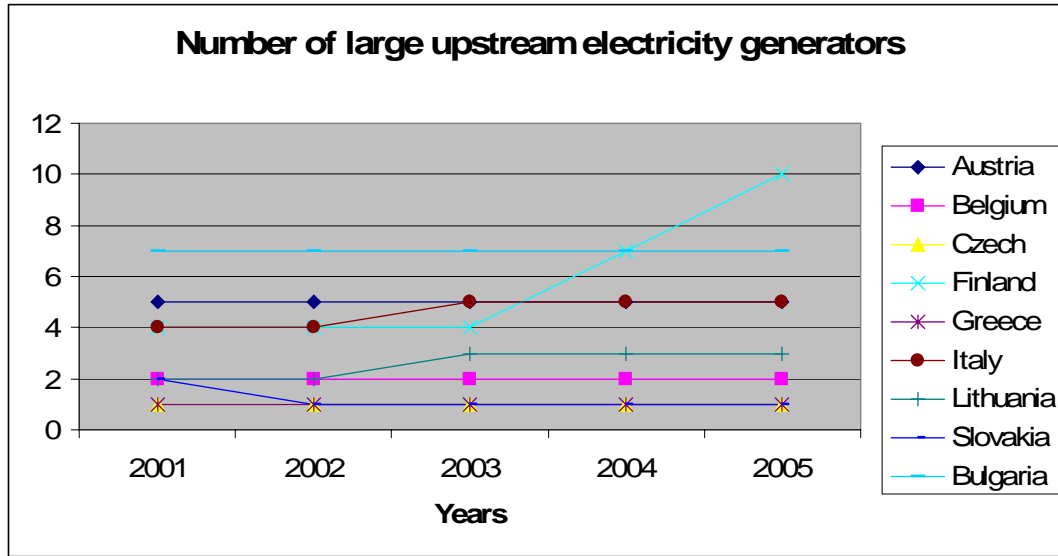
$$\Delta P_{t,i,j}^{res} = \beta_1 + \beta_2 N > 5\%_{t,i,j} + \varepsilon_{t,i,j}$$

$\Delta P_{t,i,j}^{res}$ represents the percentage difference in retail prices for residential customers between years t and $t-1$.

$N > 5\%_{t,i,j}$ identifies the number of upstream firms with higher or equal to 5% share in the upstream market (generator for electricity, controller of available gas for the gas sector). The number of “large” upstream firm is used as a proxy variable for the concentration level in the upstream market. The largest the number of upstream firms with more than 5% market share, the lowest the concentration. Indeed, a low number of large upstream firms is generally associated with the presence of few dominant firms. Certainly, a HH concentration index (for a detailed illustration of the HH index, see paragraph 5.3.) would yield a more appropriate measure of market concentration. The choice of the number of large upstream firm over the HH index as dependent variable in the regression, in spite of the advantages of the latter on the former, is exclusively due to data availability.

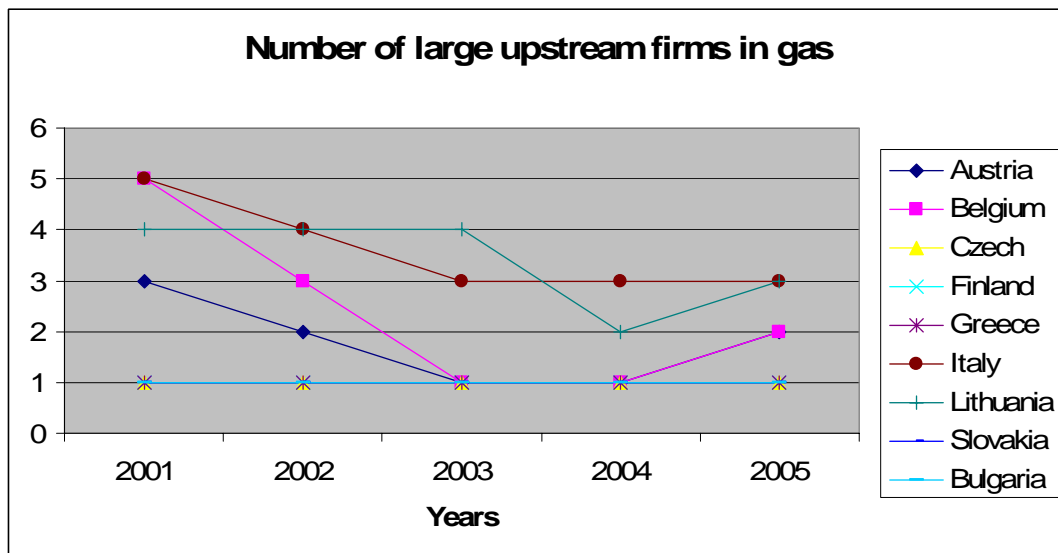
Graphs 9 and 10 illustrate the evolution of the number of upstream firms with more than 5% market share for electricity and gas.

Graph 9: Number of upstream electricity generators with market share > 5%



Sources: EU Benchmarking Report, Business Source Premier, Partners' Questionnaire

Graph 10: Number of upstream firms with market share > 5% in gas



Sources: EU Benchmarking Report, Business Source Premier, Partners' Questionnaire

Due to data availability, t stretches from 2001 to 2005. Results are presented in Table 4.

Table 3: Regression Results

Parameter	Value of parameters	Test	Value of test
β_1	-1.63%	R^2	28%
β_2	-0.42%		

While the model has a limited power (mathematically, this is evident in the relatively low value of R^2), we may still infer the implication that upstream concentration positively affects retail prices. When concentration increases, prices increase and vice-versa.

The result shows that concentration in the upstream market is an important determinant of the effectiveness of the retail liberalization process. In countries characterized by a more concentrated generation market (for electricity), or by a more concentrated control of the available gas, the price-reduction effect of liberalization is mitigated. In other words, the liberalization process can fully spread its beneficial effects only under a non-oligopolistic upstream sector. Probably, this phenomenon is due to the fact that, in a concentrated environment, upstream firms are better able to control the final prices, thereby limiting the beneficial effects of a more competitive downstream market.

We now analyze the impact of upstream State ownership on residential prices. We estimate the following regression:

$$\Delta(P_{t,i,j}^{res} - P_{t,i,j}^w) = \beta_1 + \beta_2 I(StateOwnership)_{t,i,j} + \varepsilon_{t,i,j}$$

$\Delta(P_{t,i,j}^{res} - P_{t,i,j}^w)$ represents the yearly changes in the extra price paid by residential customers beyond the wholesale price, while the dummy variable referred to State ownership takes the value 1 in years, States and markets in which the upstream sector (generation for electricity, control of available gas for gas) is owned by the State for a share exceeding 30%. The computation of State ownership results from the following expression:

$$\sum_{p=1}^N s_p MS_p$$

s_p indicates the State's ownership share in firm p , while MS_p identifies the market share of firm p . For example, in the Italian electricity market in 2003, Enel's market share was 60%, while the State's ownership share in Enel was 45%. Hence, the total public share, computed according to the previous equation, amounts to 27%.

t stretches from 1999 to 2005, and data on State ownership are obtained through the websites of national regulators, and through the Foundation Eni-Enrico Mattei.

The results of the regression are presented in Table 5.

Table 4: Regression results

Parameter	Value of parameters	Test	Value of test
β_1	-5.2%	R^2	42%
β_2	0.893%		

State ownership positively affects the “non wholesale” component of prices. We may draw a parallel between State ownership and upstream concentration. Under State ownership, upstream concentration tends to increase. In a more concentrated upstream environment, upstream firms are better able to control the final prices; hence, within such a context, the retail market is less significant in end-users price determination. Hence, the positive effects of liberalization are not fully displayed under State ownership.

6.5.3. Retail market structure and market design

We finally examine the features of the retail market, in terms of structure and design, affecting end-user residential prices.

The regression takes the following form:

$$\Delta P_{t,i,j}^{res} = \beta_1 + \beta_2 N > 5\%_{t,i,j} + \beta_3 OWN_{t,i,j} + \beta_4 IP_{t,i,j} + \varepsilon_{t,i,j}$$

$N > 5\%_{t,i,j}$ denotes the number of retailers with a market share of more than 5% operating at time t in country i in market j , $OWN_{t,i,j}$ identifies ownership structures of retail energy firms (namely, whether or not they are vertically integrated in the upstream production stages), and finally $IP_{t,i,j}$ identifies the presence of industrial policy measures, tending to favor industrial customers over residential ones. In particular, we focus on two such measures:

- the possibility, restricted to industrial customers, to build and manage their own merchant line;
- the availability of a voluntary bilateral contracts market only to industrial customers.

The regression has two dummy variables:

$OWN_{t,i,j}$ takes the value 1 if the retailer having the largest market share is owned by one of the two largest generators. Otherwise, it takes up the value of 0.

$IP_{t,i,j}$ takes the value of 1 if at least one of the two above mentioned industrial policy measures tending to favor industrial customers over residential ones are adopted at time t in country i in market j . In particular, we wish to understand if the rule according to which industrial customers have a special priority in acquiring imported energy generates a relevant effect on the results. This should theoretically be true, especially in countries in which import is a lot cheaper than locally produced energy.

Regression results are presented in Table 5.

Table 5: Regression results

Parameters	Value of parameters	Test	Value of test
β_1	-1.27%		
β_2	-0.65%	R^2	39%
β_3	0.04%		
β_4	1.43%		

The results show that retail market concentration, expressed by $N > 5\%_{t,i,j}$ matters. The lowest concentration (i.e., the highest the number of retailers with a more than 5% market share), the lower the prices. Indeed, $\beta_2 < 0$ indicates that the effects of liberalization are larger with a dispersed retail ownership.

The level of vertical integration, captured by β_3 , is shown to have a modest effect on prices.

Finally, industrial policy measures tend to generate a substantial increase in prices ($\beta_4 > 0$). It is likely that, under such circumstances, the supply side in the electricity market shifts its revenue source from the industrial to the residential customers, thus damaging the latter. It is crucial to understand that industrial policy measures tend to thwart residential customers. On the policy side, this tradeoff has to be evaluated, and a complete welfare analysis, which includes also customers, has to be performed prior to undertaking any industrial policy actions.

While the number of retailers is an important statistics of concentration in the retail energy markets, it does not convey all the relevant information one wishes to analyze. It would then be useful to integrate it with a proper measure of concentration. The most famous and widely accepted among them is provided by the $HH_{t,i,j}$ (Herfindhal – Hirschner) index, expressed, for country i , as follows:

$$HH_i = \sum_{l=1}^N s_l^2$$

where s_i^2 indicates the market share of each retailer l in country i . The theoretically possible values of the HH index range from 0 to 1. When the index is close to 0, the retail activity is extremely dispersed: there are many firms, and none of them has a dominant position. On the contrary, as the index gets closer to one, either there are very few firms, or one of them has a dominant position, in terms of market share. Unfortunately, unavailability of data does not allow us to build a well specified HH index for all partner countries, hence at the current stage it cannot be used.

Finally, the econometric model can be usefully deployed to show the correlation between regulatory choices and the workings of retail markets. To this end, we propose to rank partner countries according to a set of indicators. The weight attributed to each indicator reflects its importance for the smooth functioning of retail markets. We chose to give more weight to the reduction of search and switching costs and to those which reduce barriers to entry. As discussed in the report, such measures allow competition to flourish on the supply and the demand side. The list of indicators and the scores are reported in Table 6.

Table 6: List of indicators and scores classification

List of indicators	Scores
Measures reducing switching and search costs	Unsatisfactory (0), partially satisfactory (3), fully satisfactory (6)
Measures reducing barriers to entry	Unsatisfactory (0), partially satisfactory (3), fully satisfactory (6)
Regulation of contract terms	Unsatisfactory (0), partially satisfactory (2), fully satisfactory (4)
Quality of supply	Unsatisfactory (0), partially satisfactory (2), fully satisfactory (4)
Dispute resolution	Unsatisfactory (0), partially satisfactory (2), fully satisfactory (4)
Consumers representation	Unsatisfactory (0), partially satisfactory (1), fully satisfactory (2)

Source: Our elaborations based on data available on the report

Table 7 shows the scores for each partner country. The reasons behind each assessment are explained in the final report.

Table 7: Scores for each partner country

Country	Switching/search costs	Barriers to entry	Contract terms	Quality	Dispute resolution	Cons. Representation	Total
Austria	0	3	2	2	2	1	10
Belgium	6	3	4	2	0	1	16
Bulgaria	-	0	0	0	2	0	2
Czech Rep.	0	0	0	2	2	1	5
Finland	3	3	4	2	0	1	13
Greece	-	0	2	0	2	0	4
Italy	3	3	3	4	2	2	17
Lithuania	-	0	2	2	2	0	6
Slovak Rep.	-	0	0	0	2	0	2

Based on the previous scores, based on 2006 data, we perform a statistical analysis.

The regression is the following:

$$\Delta(P^{res} - P^{ind})_{2005-2006,i,j} = \beta_1 + \beta_2 SWITCH_{2006i} + \beta_3 BARRIERS_{2006i} + \beta_4 CONTRACT_{2006i} + \beta_5 QUALITY_{2006i} + \beta_6 DISPUTE_{2006i} + \beta_7 REPRESENTATION_{2006i} + \varepsilon_{2006i,j}$$

where $\Delta(P^{res} - P^{ind})_{2005-2006,i,j} = \frac{(P_{2006,i,j}^{res} - P_{2006,i,j}^{ind}) - (P_{2005,i,j}^{res} - P_{2005,i,j}^{ind})}{(P_{2005,i,j}^{res} - P_{2005,i,j}^{ind})}$ indicates the

percentage change between the years 2005 and 2006 in the difference between residential and industrial energy (electricity and gas) prices. A negative $\Delta(P^{res} - P^{ind})_{2005-2006,i,j}$ in market j and in country i shows convergence between residential and industrial energy prices between 2005 and 2006. On the other hand, a positive value of $\Delta(P^{res} - P^{ind})_{2005-2006,i,j}$ shows a tendency for prices paid by industrial and residential customers to diverge in the considered time period.

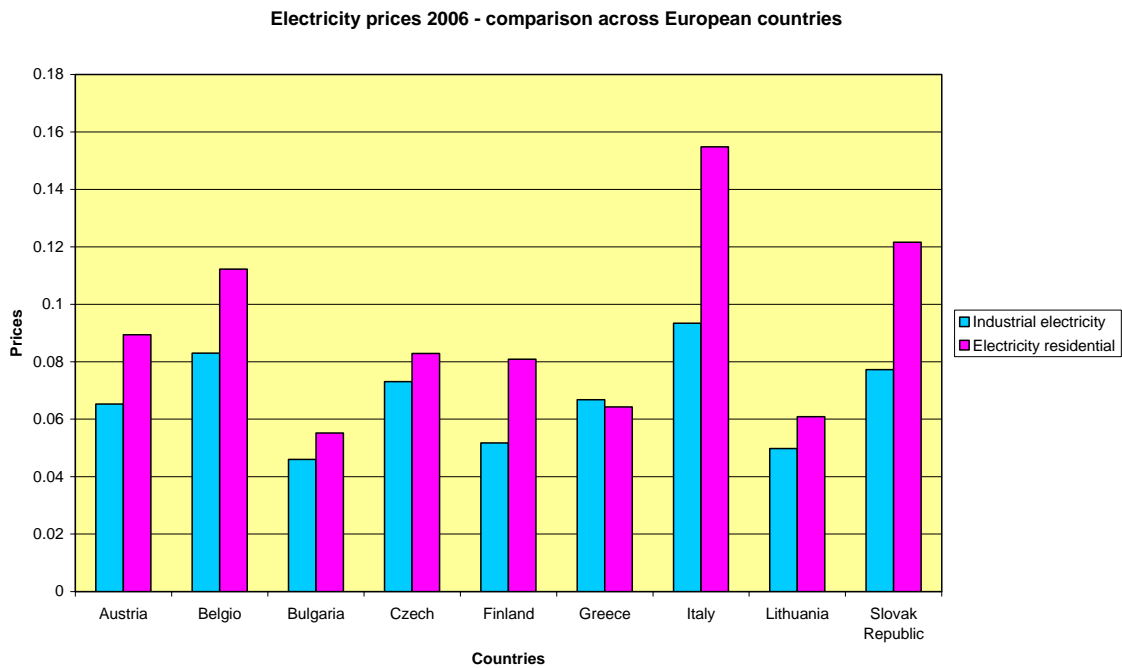
We regress $\Delta(P^{res} - P^{ind})_{2005-2006,i,j}$ on a set of covariates, respectively switching/search costs, barriers to entry, contract terms, quality, dispute resolution, and consumer representation. The measure attributed to each of the covariates is represented by the previously mentioned score.

The reason for the choice of $\Delta(P^{res} - P^{ind})_{2005-2006,i,j}$ as our dependent variable is that, as previously mentioned, electricity and gas prices are clearly affected by exogenous

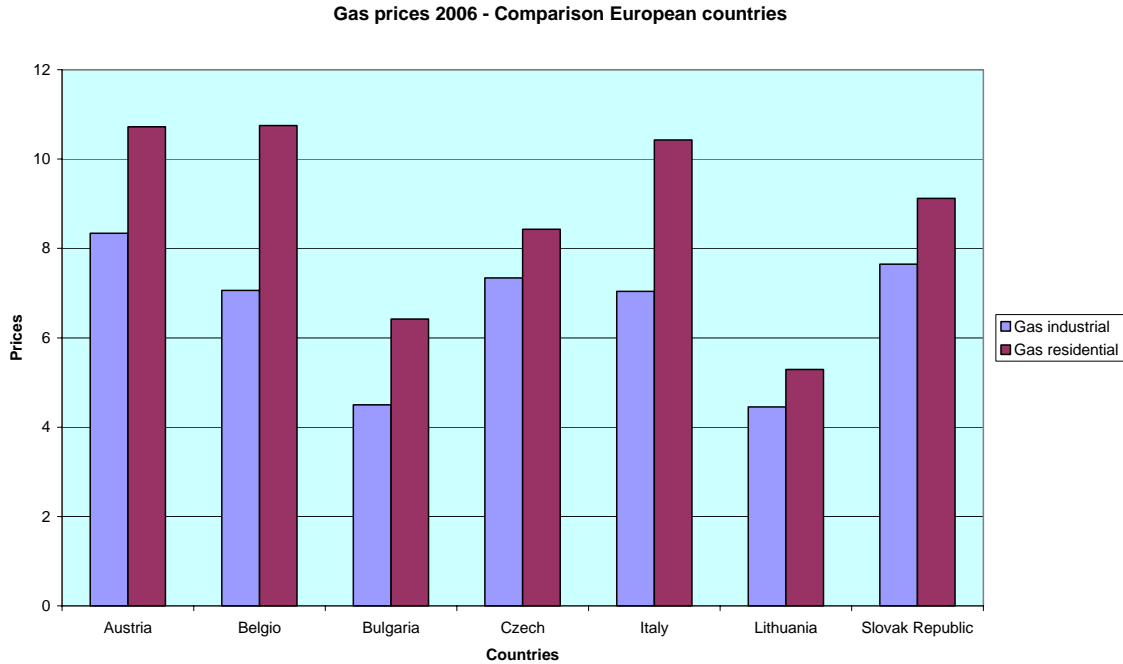
country-specific components, which influence both the industrial and the residential sector, and by time-dependency. The consideration of $\Delta(P^{res} - P^{ind})_{2005-2006,i,j}$ should, hence, take care both of the country-specific components and of various evolutionary trends of prices in the last years.

Graph 11 and 12 report industrial and residential electricity and gas prices respectively in 2006.

Graph 11: Electricity prices (eurocent/KwH) 2006: Industrial and residential



Graph 12: Gas prices 2006: industrial and residential



While the number of observations is in this case insufficient to draw definite conclusions, Table 8 reports the results for the parameters displaying a significant trend.

Table 8: Correlation results

Parameters	Value of parameters
β_2	-0.21%
β_3	-1.43%

According to Table 8, a better switching cost regulation and lower barriers to entry are shown to have reduced on average the price differential between industrial and residential customers between the years 2005 and 2006. In spite of the necessarily limited predictive power of our last model, driven by the qualitative assessment (and in particular by the numerical ranking) that we assigned to partner countries, we can infer from it that market design matters, and in particular good rules on switching costs and on barriers to entry may help reducing the price differential between residential and industrial customers.

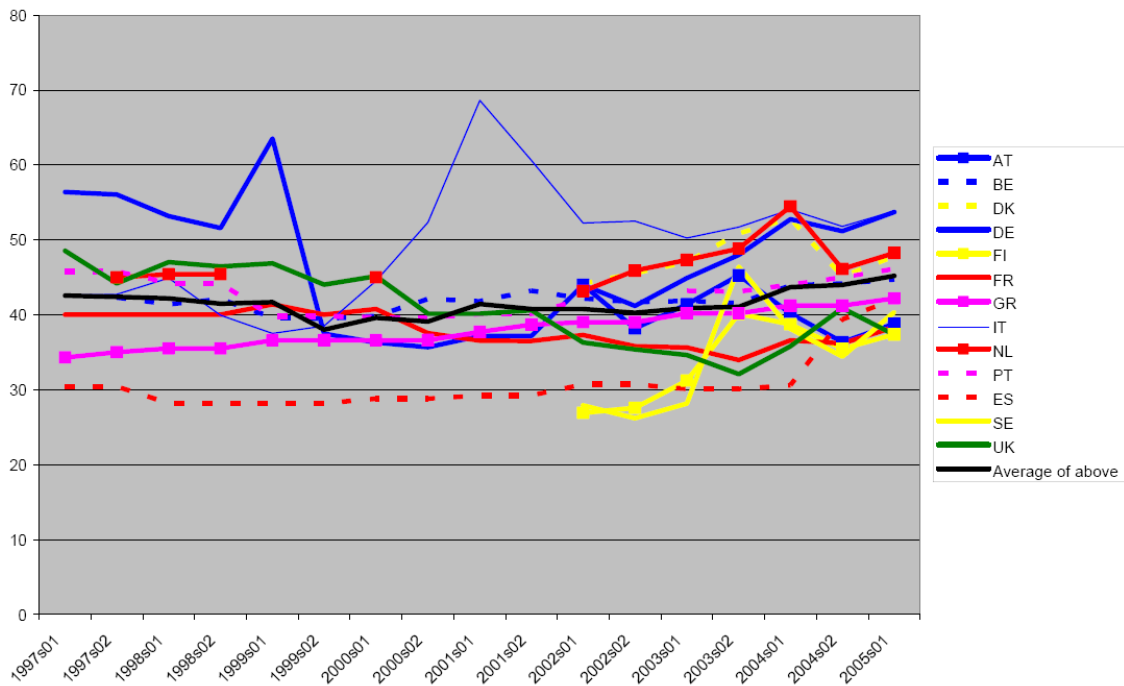
6.6 Policy implications

The policy implications paragraph has necessarily to start with a caveat. The relatively small sample, both in terms of examined countries, and in terms of the time period considered (the European liberalization phenomenon is relatively recent) determines the possibility that estimators be not very precise.

However, a number of policy implications seem to be emerging from the analysis in a quite clear way:

1. the retail liberalization process has generated advantages for the categories of customers that have been affected by it. Residential customers have indeed been advantaged by the full retail market opening, where this has already been implemented;
2. when the retail market is open only to industrial customers, then residential customers are disadvantaged, both in relative terms (with respect to the industrial customers located in the same country), and in absolute terms (with respect to the residential customers of the countries in which residential and industrial customers receive the same treatment). The full market opening of 2007 should induce a homogenization of treatments between industrial and residential customers, hence it should mitigate the bias against residential customers;
3. concentration in the upstream market is an important determinant of the effectiveness of the retail liberalization process. In countries characterized by a more concentrated generation market (for electricity), or by a more concentrated control of the available gas, the price-reduction effect of liberalization is mitigated. In other words, the liberalization process can fully spread its beneficial effects only under a non-oligopolistic upstream sector. Probably, this phenomenon is due to the fact that, in a concentrated environment, upstream firms are better able to control the final prices, thereby limiting the beneficial effects of a more competitive downstream market. Actions should be taken in order to enhance competition in the upstream markets, and to support more competitive generation electricity generation and gas markets;

4. partly linked to point 3., a strong presence of the state (in the production/generation and/or in the transmission sectors), also mitigates the effectiveness of the liberalization measures, probably for the same reasons above illustrated. Leaving aside the wide and debated issue of State ownership, we just mention here that a successful liberalization of the retail sector is more likely under private ownership than under the public one.
5. the market structure of the retail sectors significantly matters. In particular, on average, the higher the number of suppliers, the lower the prices, and the lower the concentration, the lower the prices. Measures should be taken in order to favor the emergence of a more competitive market structure;
6. the retail market design significantly shapes outcome. Countries in which consumers are more informed and in which switching is easier have on average relatively lower prices than those that do not display these features. Ensuring more information to consumers and a simpler and cheap switching procedure is crucial for an effective liberalization process;
7. policy measures aimed at favoring industrial customers, such as, for example, a bilateral contract market and/or merchant lines accessible only to industrial customers, damage residential customers. It is likely that, under such circumstances, the supply side in the electricity market shifts its revenue from the industrial to the residential customers, thus damaging the latter. It is crucial to understand that industrial policy measures tend to thwart residential customers. On the policy side, this tradeoff has to be evaluated, and a complete welfare analysis, which includes also customers, has to be performed prior to any industrial policy decisions.



7. Energy consumers' contracts

In this chapter we explore the content of residential energy supply contracts.⁷⁵ We firstly describe the type of intervention on contract terms chosen by each partner country. Then we describe in detail the contents of some terms relating to the most important aspects of the contractual relationship and the way they are regulated in partner countries. Finally, we report the results of a research on unfair terms in electricity and gas contracts performed in the CLAB Europa database.

7.1 The control on residential energy supply contracts

Partner countries exhibit different models of control. The choices they made can be categorized as follows, in ascending degree of intrusiveness:

- a) exclusive reliance on general contract and consumer law
- b) disclosure duties: regulators establish what terms must be communicated to consumers, but do not mandate their contents

⁷⁵ The terms relating to commercial quality and continuity of supply are discussed in chapter 8.

- c) approval of terms drafted by suppliers or their branch associations
- d) mandatory terms to be included in every residential supply contract

The following table summarizes the position in each partner country.

Table 6.1 – Models of control on residential energy supply contracts

Country	Information	General law	Approval	Mandatory terms
Austria	X	X		X
Belgium	X		X	X
Bulgaria	X		X	
Czech Rep.		X		
Finland	X	X	X	X
Greece	X		X	X
Italy	X	X		X
Lithuania	X	X	X	X
Slovak Rep.	X	X		X

It is clear that most partner countries thought specific measures were needed to protect residential consumers. Only Austria (until the new rules introduced in 2006) and the Czech Republic are willing to rely on general contract and consumer law as the main protective device. All other partner countries supplemented general law with more focused interventions. It is interesting to note that Annex A to the second electricity and gas directives only asks the Member States to adopt fair contractual terms and to impose disclosure duties to suppliers. ERGEG best practice proposition on customer protection suggests some protective measures, but without detailing their contents. Most partner countries go beyond these minimal requirements and impose mandatory terms in residential energy contracts.⁷⁶

Different degrees of market opening partly explain the solutions adopted as to the control of energy contracts terms. Often eligible clients do not benefit from the protection of mandatory terms.⁷⁷ In other cases (e.g. Finland) mandatory terms must be adopted only by dominant suppliers. It remains to be seen, however, if the formal completion of the liberalization process in July 2007 wipes out any request for protective measures. As we suggested in the first chapter, the problems energy

⁷⁶ It should not be forgotten, however, that sometimes the law in the books does not match the law in action. For example, the Bulgarian partner says that, although written contracts with residential consumers are required by the energy regulations, they are almost never offered by suppliers.

⁷⁷ In Italy residential gas consumers can choose terms different from those mandated by Aeg. However, they maintain the right to go back to mandated terms when they subscribe to a new contract.

consumers experience are common to other markets as well. However, the deeper question is whether general law warrants adequate levels of protection. Only a detailed analysis of the most important terms usually inserted in energy contracts can begin to give an answer. This is the task we now turn to.

7.2 The contents of residential energy supply contracts

7.2.1 Termination of contracts by consumers

Traditionally, contracts concluded by residential consumers with monopolist suppliers were of indefinite duration (the so called evergreen contracts). The consumer had the right to terminate the contract at short notice, whereas the supplier had the right to change the price and other conditions. In liberalized markets, contracts of indefinite duration are still the most widespread type of agreement in the domestic segment. However, suppliers increasingly offer fixed-price, fixed-term contracts ranging from 1 to 3 years. These contracts cannot be terminated until the end of the agreed upon period, but neither can they be modified by the supplier. Therefore, it is plausible to assume that some consumers could prefer a fixed-price contract to a variable one.

There are some drawbacks, however. First of all, we have to assume that consumers are perfectly able to choose the contracts best suited to their interests. If such assumption does not hold (because of cognitive errors or manipulation of consumers' preferences by suppliers), many consumers could be locked in disadvantageous contracts for a long time. Secondly, longer contract durations could reduce the number of consumers able to switch at short notice. Consequently, there will be reduced headroom for profitable entry by new suppliers. These considerations should be borne in mind when discussing the rules on termination rights introduced in each partner country. There is a trade-off to address: easing the cancellation of contracts by consumers could reduce switching costs and increase competition, but it could also dissuade suppliers from offering fixed-price contracts that some consumers would like to conclude.⁷⁸

⁷⁸ For a thorough assessment of this issue see LITTLECHILD (2006), who concludes for the removal of the UK 28 day rule, a standard licence condition conferring to all consumers the right to terminate their contracts at short notice. EUROPEAN COMMISSION (2007), p. 237ff. (gas), 285ff., points out the possible

In **Austria** section 15(1) of the Consumer Protection Act gives consumers the right to terminate energy supply agreements concluded for an indefinite period or a period exceeding one year, subject to notice of two months up to expiry of the first year, and expiry of half a year thereafter. This mandatory rule seems to foreclose fixed-term contracts longer than one year, at least for residential consumers. BWB doubts that fixed-term contracts could have anticompetitive effects, but does not reach a general conclusion as to the validity of such clauses.⁷⁹

In **Belgium** the agreement sponsored by the federal government includes among the general terms to be applied by the suppliers the right of the consumer to terminate contracts of indefinite duration with a notice no longer than two months or, in case of contracts of definite duration, the right to oppose the renewal within two months from the beginning of the new contractual period. A study carried out by the Belgian federal regulator says that a discount of 1% in favour of clients that subscribe fixed term contracts does not violate antitrust and commercial law. The price reduction is justified by the marketing and sourcing costs that the supplier can avoid for more stable clients. However, the same study underlines that higher discounts could have anti-competitive effects. Moreover, this pricing policy could be lawful only if the consumers receive adequate information.⁸⁰

In the Brussels Region the ordonnances on the organization of the electricity and gas markets, as amended at the end of 2006, provide that supply contracts must be concluded for at least three years, but the consumers can withdraw at two months notice.

In **Bulgaria** suppliers of electricity, gas and heat power are only asked to include in their general terms the duration of the contract and the conditions for renewal and termination. These general terms must be approved by the SEWRC.⁸¹

anti-competitive effects in downstream markets of long-term contracts with tacit renewal clauses and long notice periods.

⁷⁹ BWB (2005, p. 68). The Gas Market Rules of August 2003 provide that, for indefinite network access agreements, the network user may terminate the agreement at the end of any month, subject to written notice of one month. If a supplier transfer cannot be effected within the intended notice period the distribution network operator must inform the network user immediately upon receipt of notice and suggest an extension of the agreement [sec. XXX(1)].

⁸⁰ CREG, *Étude (F) 050602 – CDC-441*, 2 juin 2005.

⁸¹ See Ordinance on licensing of activities in the energy sector, State Gazette n. 53 of June 22, 2004 (unofficial translation at www.dker.bg/).

In the **Czech Republic** there aren't specific rules on termination rights. The general rules of the Commercial Code apply.

In **Finland** consumers can terminate electricity sale contracts of definite or indefinite duration whenever they wish at two weeks notice. However, if the contract is outside the obligation to deliver and was concluded for a period longer than two years, it can be terminated by the consumer after two years.⁸²

In **Greece** the Electricity Supply Code states that consumers can terminate contracts with a minimum notice of three months. In the gas sector the distribution license mandates that customers can withdraw from the contract at any time without charge. Usually there is one year duration of the contract with automatic renewal.

In **Italy** Aeg laid down specific rules on the termination of electricity and gas supply contracts. In the electricity sector Aeg gave eligible clients the right of withdrawal with six months notice, reduced to 30 days for those clients that became eligible during the year.⁸³ Civil code rules on contracts for the recurring supply of goods can be applied. Sec. 1569 It. civ. code provides that in contracts of indefinite duration parties can withdraw at any time with adequate notice. Mirroring this rule, the general conditions of the former electricity monopolist Enel state that the residential supply contract is of indefinite duration and can be terminated at 30 days notice.

In the gas sector sec. 3 Aeg dec. n. 184/01 as amended gave the right of withdrawal to eligible clients with 30 days notice. However, many suppliers offer more restrictive terms, sometimes linked to penalties for switching clients.

With a consultation document issued in May 2007 Aeg proposed to harmonize the rules on consumers' withdrawal in the gas and electricity sector. Low voltage consumers or with yearly consumption no higher than 200.000 cm can withdraw at 30 days notice. However, if the consumer has already withdrawn once in the preceding year, from the second time on she must wait at least six months before withdrawing again.

⁸² See sections 25f and 25i Electricity market act 386/1995 and sub. amendments (unofficial translation at www.energiamarkkinavirasto.fi/). Rules on residential gas contracts are laid down in Chapter 4, section 7 of the Natural Gas Market Act.

⁸³ Aeg dec. n. 78/99 and 158/99. Of course, these rules only applied to non domestic consumers. More recently, Aeg proposed to harmonize the provisions on withdrawal with the switching procedures. According to this proposal, the notice period should start the first day of the first month following the month in which the consumer notified the withdrawal: see the consultation document of 12 March 2007. This rule will apply to domestic consumers.

In **Lithuania** electricity supply contracts are of indefinite duration and can be terminated by the consumer with a 30-calendar-days written notice. Gas supply contracts are usually concluded for a year and can be terminated without restrictions.

Specific provisions for the purchase-sale of energy were included in the Lithuanian Civil Code, which entered into force in 2001. They apply only if other laws do not provide otherwise. With regard to termination, sec. 6.390.1 states that if “the subscriber is a natural person -consumer using energy for domestic consumption, he shall be entitled to unilateral rescission of the contract notifying the energy supply enterprise thereof, provided the he has paid for the energy used.”

In the **Slovak Republic** there aren't specific provisions on termination rights.

7.2.2 *Termination of contracts by suppliers*

Both electricity and gas satisfy fundamental needs and cannot be easily replaced. For this reason, most countries do not allow suppliers to withdraw at will. Significant differences can be detected in each partner country. It could be useful to distinguish among the causes of supplier's withdrawal:

- a) causes linked to the business organization of the supplier (e.g. bankruptcy or exit from the market);
- b) consumer who does not want to pay or steals energy;
- c) consumer who can't afford to pay.

These three situations ask for different regulatory answers. In the first case the problem can be addressed by introducing suppliers of last resort.⁸⁴ In the second case the supplier should be allowed to terminate the contract, but the consumer should be given the opportunity to redeem her debt. In the third case termination should be forbidden and alternative means for paying the bills should be introduced. We shall now compare the procedures drawn by legislators and/or regulators to address this issue.

In **Austria** the Gas Market Rules of August 2003 [sec. XXIX(1)-(3)] give the distribution network operator the right to suspend its performance if the other party is in breach of the agreement and such breach is material and is not immediately rectifiable. In four cases of breach the suspension can be immediate. Any other breaches of contract

⁸⁴ On this issue see ERGEG (2005a, p. 39ff.).

including default on payment obligations entitle the parties to suspend performance after written notice or a request to cease and desist on pain of suspension of performance and fruitless expiry of a period of two weeks.

The distribution network operator has reasonable grounds for termination if:

- the network user is in arrears with payments despite action in accordance with Clause XXIX (3) above; in this case an extension of six weeks must be granted;
- the network user persists in a material breach of contract despite notice and threat of termination, and an extension of two weeks;
- the network user is insolvent, or petitions for bankruptcy, or a petition for bankruptcy is refused due to insufficient assets;
- the network user rejects amended, approved general terms and conditions of network use (see Clause XXVI) despite being expressly advised of the distribution network operator's right of termination.

According to sec. XXXII (7) of the Gas Market Rules of August 2003, in the event that a party has wrongly given rise to reasonable grounds for termination the other party is entitled to sue for damages on grounds of breach of contract.

In **Belgium** the agreement sponsored by the federal government forbids contractual terms that enable the supplier to immediately terminate the contract if she suspects the consumer can't pay. More detailed regulations have been enacted by regional legislators.

In the **Brussels-Capital Region** the electricity supplier can install a current limiter if the consumer does not pay the bill within 15 days from the notice. The supplier must also inform the local public social help center. The intervention of the center aims at verifying the presence of economic difficulties on the part of the consumer. If this is the case, the center can help the consumer to obtain the status of protected consumer and to agree a repayment plan with the supplier. Following the agreement, the initial power level can be restored. If the consumer breaches the repayment plan, he can be transferred to the supplier of last resort. Disconnections are forbidden without a judicial order.⁸⁵

⁸⁵ See sec. 25sexies ff. ordonnance 19 juillet 2001, as amended by the ordonnance 14 décembre 2006. The same provisions apply in the gas sector: see sec. 20quater ff. ordonnance 1er avril 2004, as amended by the ordonnance 14 décembre 2006.

In the **Flemish Region** consumers who do not pay their bills must be given the possibility to agree to a repayment plan or to use a prepayment meter with a current limiter. If the consumer does not avail herself of neither options, the supplier can terminate the contract. However, the consumer who in the following 10 days is not able to find another supplier must be supplied by the distributor with a prepayment meter and must be charged a social tariff. A current limiter can be installed if the bills are not paid because of reasons depending exclusively on the will of the consumer. In case of theft of electricity disconnection is allowed, provided it is not executed in winter months.⁸⁶

In the **Walloon Region**, too, consumers that cannot afford to pay their bills can avail themselves of different solutions: repayment plans agreed with the suppliers, the help of public social action centers, installation of prepayment meters. Disconnections are only allowed if the consumer could pay but does not want to.⁸⁷ A local commission has been set up to decide on the disconnection of the supply of electricity and gas. A sanction of 125 euros per day must be paid for unauthorized disconnections.⁸⁸

In **Bulgaria** articles 122 and 123 law on energy of 2004 state that disconnection is allowed without advance notice to prevent security risks, in case of electricity theft or unauthorized connection. If the consumer does not pay the bill the advance notice and termination conditions are provided for in the general terms of contracts drafted by the suppliers and approved by SEWRC. Termination of heat energy supply contracts in case of payment default is regulated by article 154 law on energy.

In the **Czech Republic** termination rights are regulated according to the commercial code. Sec. 25 (electricity) and 59 (gas) Energy Act 2000 entitle the distributor system operator to limit or interrupt distribution or supply in case of emergency or unauthorized consumption. The approach to customer disconnection does not differentiate between vulnerable and other customers. The various distribution companies keep the data on

⁸⁶ See sec. 2-8 and 19-20 Arrêté du Gouvernement flamand relatif aux obligations sociales de service public dans le marché libéré de l'électricité of 31 January 2003. Analogous provisions have been enacted in the gas sector : see sec. 2-7 and 18 Arrêté du Gouvernement flamand relatif aux obligations sociales de service public dans le marché libéré du gaz naturel of 20 July 2003.

⁸⁷ See sec. 29ff. Arrêté du Gouvernement wallon relatif aux obligations de service public dans le marché de l'électricité of 30 March 2006 and sec. 32ff. Arrêté du Gouvernement wallon relatif aux obligations de service public dans le marché du gaz of 30 March 2006. New rules have been proposed in the Flemish and Walloon Region which aim at coordinating the procedures for the termination of contracts due to non payment and to the choice of a different supplier: see CWAPE, *Étude CD-6119-CWaPE*, 13 décembre 2006.

⁸⁸ See sec. 46 Décret 19 décembre 2002 relatif à l'organisation du marché régionale du gaz.

disconnected customers, and the Energy Regulatory Office currently does not require any differentiation.

In **Finland** the Electricity Market Act distinguishes between interruption of supply and termination of the contract. According to sec. 27i, interruption is allowed if the user of electricity has materially defaulted on the payments to be made to the retailer or to the distribution system operator, or has otherwise materially infringed against the obligations based on the contract. Before interrupting the supply of electricity, the user of electricity must be sent a written notification of the default on payment or of the breach of contract, and a separate warning of cutting the supply of electricity, which is sent at the earliest two weeks after sending the notification. The supply of electricity may be cut at the earliest five weeks after the payment has fallen due or after the user of electricity has been informed of some other breach of contract for the first time, and the breach of contract has not been rectified in time before cutting the supply of electricity. If the default on payment is caused by the user's financial difficulties that he has run into because of serious illness, unemployment or some other special cause, principally through no fault of his own, the supply of electricity may be cut at the earliest two months after the due date of the payment. The supply of electricity may not be cut, because of default on payment, between the beginning of October and the end of April in a building or in a part of a building that is used as a permanent residence, if the building is heated by means of electricity, until four months have elapsed since the due date of the outstanding payment.

Sec. 27k states that the distribution system operator has the right to terminate the electricity system contract and the retailer has the right to terminate the electricity sale contract if:

(1) the user of electricity has materially violated the obligations based on the respective contract, and this breach of contract has not been rectified within a reasonable period specified in writing by the distribution system operator or the retailer;
or

(2) the supply of electricity to the place of use referred to in the contract has been cut on the grounds laid down in section 27 i(1), and this power cut has continued for at least one month.

Notwithstanding these provisions, an electricity system contract and an electricity sale contract may be terminated immediately, if the user of electricity is guilty of stealing electricity, of willfully damaging the equipment under the vendor's or the distribution system operator's responsibility, or of breaking the seals placed by the vendor. The distribution system operator or the retailer must send a written notification on the termination of the contract to the contracting party. This notification shall state the grounds for termination and the date when the contract will expire.

In **Greece** the Electricity Supply Code allows contract termination by the supplier with a minimum notice of 12 months. However, unilateral termination of the contract by the supplier with less than 3 months notice is possible a) in case of unsettled debt (45 days following payment date expiration) and b) in case of breach of contract terms by the customer.

In **Italy** Aeg dec. n. 200/99 introduced mandatory terms to be applied to electricity supply contracts. Payment can be asked no less than 20 days after mailing the bill. Interest due on late payments cannot be higher than the official bank rate plus 3,5%. Power cannot be interrupted if the supplier has not sent an advance written notice. Notwithstanding such notice, power interruption is forbidden if the bills are contested by the consumer, the supply is needed for the working of health-care machines or the defaulted bills concern minor sums. The supplier has the duty to permit payment by installments if the bill is much higher than the average. Interruption is allowed in case of theft of electricity. Aeg dec. n. 229/01 provides for similar terms in the gas sector. During 2007 Aeg plans to introduce new provisions for the supply of electricity to low income customers.⁸⁹ The consultation document of 18 May 2007 proposes to give suppliers of electricity and gas the right to withdraw at three months notice.

In **Lithuania** the supplier hasn't the right to terminate the contract with household consumers, unless the consumer is not fulfilling his obligations. According to article 47(2) Electricity Act of 2000, the transmission or distribution system operator may interrupt the transport of electricity to those customers who, upon receipt of a written warning, failed to pay the bills for consumed electricity or for its transport and related services within 15 days in case of household customers, and within 10 days in case of

⁸⁹ See the Aeg consultation documents 3 August 2006 and 18 January 2007.

other customers. Article 8(2) natural gas law of 2000 states that the gas undertaking may limit or interrupt the gas supply:

- 1) when it is determined that the customer's service poses a threat to people's life, health or property;
- 2) if the customer fails to implement or improperly implements the obligations assumed through the contract;
- 3) in cases of accidents, emergencies or other instances stipulated by laws;
- 4) owing to the required repairs and other operations of accessing the systems of other customers, having co-ordinated with the free customers and having warned the regulated customers according to the procedure stipulated in the contracts of gas supplying.

At a normal situation no security deposits are requested. But if the consumer violates the contract, the supplier acquires the right to seek security deposits. No special procedures for dealing with consumers in difficulty and late payments have been introduced.

Sec. 6.390.4 of the Lithuanian Civil Code states that "Termination, suspension or limitation of energy supply without an appropriate agreement with the subscriber or without his notification in advance shall be allowed only in cases when this is necessary in order to prevent an accident or as a response to an accident in the energy supply network. However in such cases the subscriber must also be promptly notified of the termination, suspension or limitation of energy supply."

In the **Slovak Republic** sec. 24 Energy Act of 2004 gives the distributor system operator the right to restrict or interrupt the distribution in emergency situations, in case of unauthorized offtake of electricity and of non-adherence to the contractually agreed payment conditions for the distribution of electricity after notice has been served. Similar provisions apply to the gas distribution system operator (sec. 43).

7.2.3 Modification of contract terms

Because of the high variance of the economic factors influencing energy prices, it is generally assumed that the supplier should have the right to change its contractual

conditions without the consent of the customer. Most countries allow unilateral changes. At the same time, they try to protect the consumers by giving them rights of withdrawal and asking the suppliers to send advance notice of the change. ERGEG's reports point out the great variability of the procedures regulating unilateral changes and the degree of protection afforded to consumers.⁹⁰ We now describe in more detail the solutions adopted in each partner country.

In **Austria** tariff changes must be agreed to between the parties. The supplier sends a personal communication 10 weeks before the changes. Explanations are given only in some cases. Usually the consumer can withdraw at any time with a 4 weeks notice. The Natural Gas Act (sec. 27) and the Gas Market Rules of August 2003 [sec. XXVI (2)-(3)] provide that the distribution network operator must immediately notify the network user of any amendments to the General Terms and Conditions of Distribution Network Use. The user must be accorded a period of at least one month to object to the amendments. In the event of an objection the distribution network operator may terminate the agreement in writing with three months notice, whether or not any suspension of the contractual duties or physical disconnection of the gas equipment takes place. Such termination does not affect any entitlement to the conclusion of a new network access agreement.

In **Belgium** the agreement sponsored by the federal government forbids any changes depending exclusively by factors under the control of the supplier. Other changes, different from those implemented according to an indexation clause, give the consumer the right to withdraw within a month from the personal communication. There isn't any duty to give reasons. The **Walloon Region** legislation asks for a two months advance notice specifying the consumer's right to withdraw.⁹¹

In **Bulgaria** the law on energy states that public suppliers shall publish the approved general conditions in at least one central and one local daily newspaper. The general conditions shall take effect 30 days following their first publication; no explicit approval by consumers is required.

Within 30 days after the date on which the general conditions take effect the consumers

⁹⁰ See ERGEG (2005c, p. 39ff.).

⁹¹ Art. 4(3-4) Arrêté du Gouvernement wallon relatif aux obligations de service public dans le marché de l'électricité of 30 March 2006 and art. 4(3-4) Arrêté du Gouvernement wallon relatif aux obligations de service public dans le marché du gaz of 30 March 2006.

who do not accept them may file with the corresponding public supplier an application proposing special conditions. Special conditions that differ from the general conditions accepted by the public supplier must be reflected in additional written agreements. This procedure shall also be applied for amendments to the general conditions.⁹²

In the **Czech Republic** the electricity trader shall notify small customers and households not later than two months in advance of its intention to change contractual conditions.⁹³

In **Finland** sec. 26 Electricity Market Act lists the cases in which changes to prices and other terms are allowed:

(1) on the grounds specified in the contract, provided that the content of the contract does not change materially; however, a retailer may not on these grounds change a fixed-term electricity sale contract concluded outside the obligation to deliver;

(2) if the change is based on an amendment to legislation, or on a decision made by the authorities, which the distribution system operator or the retailer has not been able to take into account when concluding the contract; or

(3) if there is a special reason for the change, owing to an essential change in the circumstances, revision of outdated contractual or pricing arrangements, or implementation of measures necessary for energy conservation; however, a retailer may not on these grounds change a contract concluded outside the obligation to deliver.

The distribution system operator and the retailer shall provide their contracting party with information on how the prices or other contractual terms will change, when the change will come into effect, and what the grounds for the change are. The contracting party must be informed whether he has the right to terminate the contract. If the reason for the change is not a legislative amendment or a decision by the authorities, the change may come into effect, at the earliest, one month after the notification of the change has been given.

⁹² See art. 98 (electricity), art. 150 (heat energy) and art. 183 (gas) law on energy 2004.

⁹³ See sec. 30(2)(d) Energy Act 2000. For the gas trader the advance notice shall be sent one month before the amended contractual conditions become effective [sec. 61(2)(g)].

In **Greece** the Electricity Supply Code states that the electricity supplier must publish any modifications in at least two national daily newspapers and one local newspaper. The publication takes place one month before the modification.

In **Italy** Aeeg set up the procedure for the annual approval of residential tariffs. Within the 15th of October suppliers propose to the regulator the tariffs they want to offer the following year. Aeeg has between 45 and 60 days to approve or reject them. Within 30 days from approval suppliers shall publish their tariffs on newspapers, regional or provincial official bulletins and the regulator's website. Once a year suppliers shall also communicate to the customer the best available tariff according to electricity consumption in the preceding 12 months, if different from the actual one.⁹⁴

Both in the electricity and in the gas sector the codes of commercial conduct state that unilateral modifications by the supplier are allowed if agreed to in the contract and supported by valid reasons. The supplier shall send the customer an advance notice no later than 60 days before the date the modifications will become effective. The notice must include the new text of the terms to be modified, a clear, complete and understandable explanation of the modifications and of their consequences, the date by which they will take effect, the conditions for customer's withdrawal free of charge.⁹⁵

In **Lithuania** art. 31 Law on Electricity 2000 states that undertakings of the electricity sector shall notify household customers in writing or by other means at least one month before the increase of prices and tariffs. Household customers shall have the right to unilaterally terminate the contracts without payment of charges if the revised contract terms are unacceptable to them. In the gas sector art. 14 Natural Gas Law states that every 6 months the gas undertaking shall set the gas prices for regulated customers, not to exceed the highest prices. New prices shall come into effect not earlier than 30 days from their having been made public. The NCC, having established that the prices have been estimated without adhering to the established methodology or are incorrect, must point out their errors to the undertakings. Should the undertaking fail to implement the request of the NCC, the NCC shall have the right to unilaterally set the prices.

⁹⁴ See article 4 Annex A to Aeeg dec. n. 4/04, Unified code concerning electricity transmission, distribution, metering and sale to the captive market services for the regulatory period 2004-2007.

⁹⁵ See sec. 12 Aeeg dec. n. 105/06 for electricity and sec. 13 Aeeg dec. n. 126/04 for gas. An inquiry conducted by Aeeg in the gas sector shows that many suppliers do not inform their customers of the way the modification will take effect and its consequences: see Annex A to Aeeg dec. n. 235/06, p. 25f..

In the **Slovak Republic** sec. 20 Energy Act states that the household customer of electricity and the household customer of gas have, without prejudice to consumer protection rights laid down by separate regulations, the right to be given information on a change in the price of electricity or the price of gas, and on an amendment to the conditions for the electricity supply or gas supply and related services, not later than thirty days prior to the entry into force of the amendment. They also have the right to withdraw from the contract if they do not agree with a change in the price of electricity or the price of gas and related services, according to the conditions specified in the supply contract.

This survey shows that the protection afforded to residential energy consumers on the issue of unilateral modifications is far from uniform across partner countries. In regulating this aspect of the relationship between energy companies and their customers three principles should be borne in mind. Firstly, deviations from the general rule that requires the consent of both parties to change the terms of the contract should be allowed only when justified by the peculiarities of energy supply contracts. Secondly, enough information should be given to the consumer to enable him to understand the reasons of the change and decide whether to search for better offers.⁹⁶ Thirdly, the right to change contract terms should work both ways. If the supplier is entitled to increase the price when its procurement costs rise, the consumer should be entitled to a price reduction whenever the procurement costs decrease.⁹⁷ We now propose a possible list of conditions that warrant a coherent implementation of both principles. They could be inserted in the forthcoming European Charter of the rights of electricity and gas consumers.

- 1) unilateral modifications should be allowed only with reference to prices and not to other terms. While the high variance of economic factors influencing the price of energy asks for recurrent adaptations during the life of the contract, there seems to be no reason to deviate from the general rule of mutual consent for any other terms;

⁹⁶ In a similar vein, ERGEG (2007, p. 9) suggests that customers' understanding of the reasons for price changes should be improved.

⁹⁷ This principle is recommended by the Finnish Consumer Agency. None of the partner countries seems to have adopted it, but it could easily be inferred from general consumer law.

2) unilateral modifications should be symmetrical. If the supplier has the right to modify the contract when it is disfavoured by market conditions, it must also pass on to the consumers the advantages connected to more favourable market conditions;

3) the consumer should receive a personal communication well before the date from which the modifications will become effective (no less than two months)

4) the personal communication should explain whether the modifications depend on the business choices of the supplier or on causes independent of its will and how large is the price increase

5) the personal communication should specify the conditions for withdrawal without any charge.

7.3 Case law on unfair terms in electricity and gas contracts

In this paragraph we provide data on unfair terms in electricity and gas contracts. The aim of the research is threefold: first of all, we want to check whether there are consistent differences in the criteria applied to evaluate the terms of residential energy contracts. As is well known, the directive 93/13/EC required only minimum harmonization. Therefore, it is possible that differences in national statutes lead to divergent assessments of the fairness of energy contracts. Secondly, a survey of the case law helps to assess whether the proposal of European standard terms for residential energy contracts is worth pursuing. Finally, the survey shows the extent to which national consumers' associations are able to resort to legal or extralegal actions to protect the interests of energy consumers.

The source on which we rely is the CLAB Europa database, a collection of unfair terms in consumer contracts hosted by the European Commission.⁹⁸ The main

⁹⁸ It can be accessed free of charge at <https://adns.cec.eu.int/CLAB/SilverStream/Pages/pgHomeCLAB.html>. Detailed information on the CLAB database can be found in MICKLITZ e RADEIDEH (2005). The results reported in the text were collected through a query performed at the beginning of March 2007. At the same date a query performed in the EU Consumer Law Acquis Database (www.eu-consumer-law.org/index.html) gave only one result: Supremo Tribunal de Justiça (PT) 06. May. 1993 P. 83348: Sont absolutament interdites les clauses incluses dans un contrat de fournissement de gaz qui attribuent à l'entreprise le pouvoir de déléguer unilatéralement à une autre entité par elle choisie la responsabilité par le fournissement, le pouvoir de

advantage of the database is the classification of unfair terms according to the economic sector. In the category of basic services there are two subcategories for electricity and gas. Therefore, it is fairly easy to find all the cases relating to energy contracts.

The CLAB database has two major drawbacks, however. The first is its limited geographical scope. It includes the case law on unfair terms from sixteen European Countries. The second drawback is its limited temporal extension. The most recent cases date from 2004. Therefore, cases discussed in the last years have not been included. Although these limits prevent more robust generalizations, the materials available offer interesting empirical insights for the three goals listed above.

Table 1 shows the total number of terms from electricity and gas contracts included in the database for each country. In most cases, each decision included in the database assesses the fairness of more than one term. Therefore, the number of total cases is much smaller than the number of terms. We omit some terms that, although classified in the electricity and gas sectors, actually refer to tenancy, water supply and construction contracts. Moreover, we do not consider terms relating to liquefied gas supply contracts because they are not relevant for gas supplied through networks, the commercial activity which is the subject of the liberalization process and of the present research.

modifier unilatéralement les prix de louage du compteur et le pouvoir de s'exonérer de responsabilité par dommages déterminés par des accidents relatifs au fournissement du gaz.

Table 1 – Total number of electricity and gas terms and total number of cases

Country	Electricity terms	Gas terms	n. cases
Austria	35	3	5 (elec.), 3 (gas)
Belgium	18	4	16 (elec.), 4 (gas)
Germany	5	0	3 (elec.), 0 (gas)
France	2	0	2 (elec.), 0 (gas)
Greece	0	0	0
UK	0	18	0 (elec.), 9 (gas)
Ireland	0	0	0
Italy	49	18	5 (elec.), 5 (gas)
Luxembourg	0	0	0
Netherlands	4	1	4 (elec.), 1 (gas)
Finland	7	0	7 (elec.), 0 (gas)
Iceland	0	0	0
Norway	13	0	9 (elec.), 0 (gas)
Sweden	0	0	0
Portugal	0	4	0 (elec.), 1 (gas)
Spain	3	10	2 (elec.), 10 (gas)
Total	136	58	56 (elec.), 31 (gas)

Compared to other economic sectors included in the CLAB database, the electricity and gas contracts raise a limited number of controversies on unfair terms. This situation can be explained by pointing out that in many countries energy suppliers are not free to choose the terms of their contracts. Public authorities exert a preventive control and avoid the insertion of abusive terms. Moreover, many controversies between consumers and energy firms are resolved through extrajudicial procedures. In this case, the issue of unfairness is not discussed at all.

As the liberalization process goes forward, many states could lift their ex-ante controls. Therefore, the unfair terms statutes will be invoked more often. For this reason it is useful to assess which terms have been judged unfair in the countries considered.⁹⁹

First of all, of the 194 terms included in the CLAB database, only 37 (36 for electricity and 1 for gas) were judged to be not unfair. Of course, the same term can be the object of more than one case. However, it seems that in Europe there is a discrete number of terms that cannot be used in all countries. To assess whether the same criteria are applied by the national courts we need to consider the type of terms in more detail. Table 2 shows the different categories.

Table 2 – Type of terms

Term	Electricity	Gas
Contract conclusion	4	4
Presentation	5	4
Payment	37	6
Liability	28	13
Obligations	26	17
Modification	12	6
Termination	15	1
Access to justice	9	7

The first thing to notice is that there is a higher number of judgements on unfair clauses in electricity and gas contracts in those countries where consumers' associations, consumer ombudsmen, chambers of commerce and public authorities started legal actions against energy firms. This is the case in Austria, Italy, Finland, Norway and UK. Suppliers were hard pressed to write more balanced contracts. On the other hand, individual legal actions have been few in number and often met with a

⁹⁹ It is interesting to note that, according to Eurobarometer data, 20% of electricity users and 19% of gas users consider unfair their contract terms. Moreover, these percentages are stable or increasing between 2000 and 2004. See Special Eurobarometer 219 – *Consumers' opinions on services of general interest – Summary Report*, p. 41. This perception is confirmed by the analysis on the CLAB database, where many unfair terms in the energy sector are collected. Its stability over time seems to suggest that the national measures introduced in that period did not produce visible improvements for consumers.

rejection in court. It is suggested that an effective control on unfair terms can be obtained by enlarging the space for collective actions, for example by giving consumers' associations the right to claim damages.

Let us now turn to a more detailed analysis of the content of the terms.¹⁰⁰ As far as the conclusion of the contract is concerned, two issues surface. The first is the fairness of a unilateral commitment which bounds only the consumer and lets the supplier free to decide whether to conclude the contract. In Italy two different judges of first instance gave contrasting judgements: while the first deemed a unilateral commitment unfair, the second observed that no obligation can be imposed on the consumer before the electricity is made available. Therefore, the imbalance within the parties' rights was excluded.¹⁰¹ The same problem was resolved in favour of the consumer in Austria. The period of 30 days, during which the consumer is bound to his offer and the supplier can decide to accept or reject, was considered unreasonably long.¹⁰²

The second issue related to the conclusion of the contract is the relevance to be given to representations made by suppliers' agents. The clauses stating that the terms of the contract are those contained in the written documentation to the exclusion of all other terms, denying liability for representations of employees and requiring variations to be in writing are deemed unfair both in the UK and in Austria.¹⁰³

The presentation of the contract raises the issues of the clearness and transparency of the terms. It was deemed unfair to include generic reasons among the causes that justify the interruption of supply,¹⁰⁴ to ask the consumer to pay for "taxes and other charges",¹⁰⁵ to ask for a bank or insurance guarantee without specifying the conditions for request, the lack of precision in the reference to a price list, to charge the consumer for the administrative costs of contracting and for inspection of the installation without giving him the right to know the amount to be paid, to give the company complete discretion to estimate the amount of gas used with no requirement that the estimate be based on previous consumption, or subject to any other limit of reasonableness.¹⁰⁶ In

¹⁰⁰ The clauses relating to the choice of the jurisdiction are common in any economic sector and will not be discussed here.

¹⁰¹ See cards n. IT000590 and IT000669 in the CLAB database.

¹⁰² See card n. AT002198.

¹⁰³ See cards n. GB000686, GB000711, GB001006, AT002034.

¹⁰⁴ See card n. IT000583. For the opposite view see card n. IT000666.

¹⁰⁵ See card n. IT000586. For the opposite view see card n. IT000667.

¹⁰⁶ See resp. cards n. IT001086, ES000107, ES000448, GB000352.

Austria it is also unfair to oblige the parties to the contract to substitute the regulation which is legally inadmissible or not performable with a regulation which is economically reasonable and as equal as possible because it conceals the legal situation, advantageous for the consumer.¹⁰⁷ Moreover, the ambiguity of the contract is interpreted against the supplier who drafted it.¹⁰⁸

The case law on payment terms shows that national judges exert their control on the following issues:

- a) fairness of extra charges
- b) modalities of payment
- c) right of the consumer to set off his counter-claims against the supplier
- d) monetary interests due in case of delayed payment
- e) proof of effective consumption and correction of billing mistakes

Before considering in more detail the issues listed above, two observations are in order. Firstly, it should be remembered that the European directive on unfair terms does not allow a direct judicial control on the fairness of the price.¹⁰⁹ Secondly, electricity and gas retail tariffs are still set by public authorities in many countries. Therefore, the judicial control is limited to the terms that establish how the payment has to be made, but cannot be extended to its amount.

As far as extra charges are concerned, it is deemed unfair to ask the consumer to pay twice for meter reading, to pay a deposit of at least £100 during the term of the agreement for no specified reasons, or to pay the costs for credit transfers.¹¹⁰ However, it is not unfair to ask for connection fees if they reflect the cost of a service to the consumer, to ask for an extra on account amount if it did not lead to any raise of the fare per kWh, or to ask the consumer to pay for the maintenance of the pipe laid in his special interest.¹¹¹

¹⁰⁷ See card n. AT002155.

¹⁰⁸ See card n. FI000032.

¹⁰⁹ See on this aspect see card n. DE001461.

¹¹⁰ See cards n. FI000227, FI000228, GB001192, AT002201.

¹¹¹ See cards n. NO000220, NO000305, ES000743, AT000441.

Turning to the modalities of payment, it is deemed unfair to establish very short terms for payment (within 8 days from mailing date in Italy)¹¹² or to send payment reminders before at least 14 days after the payment is due.¹¹³

Standard business conditions exclude the right of the consumer to suspend payment in case of non performance or to set off his claims against the supplier. This term is deemed unfair in Italy because it forces the consumer to comply anyway with his obligations and therefore to wait for the results - and bear the costs - of the action for restitution so as to recover what he had unduly paid in connection with the defaulting behaviour of the utility company.¹¹⁴ It is also unfair to provide that, should no objection against the accuracy of the invoice be raised within 14 days from the receipt, the invoice is deemed to be expressly acknowledged by the customer.¹¹⁵

In case of delayed payment, it was deemed not unfair to charge overdue interests of 7.5% per year plus any increases of the bank discount rate in force as well as additional costs.¹¹⁶ However, in Austria a clause establishing that the consumer has to compensate all costs incurred in making request for payment and collection expenses without any limit is unfair because the code of civil procedure (ZPO) allows only the costs serving for an appropriate prosecution.¹¹⁷

Finally, clauses limiting the consumer's power to raise objections against meter readings have been deemed unfair.¹¹⁸ In Spain the supplier is not allowed to claim the payment of the difference not previously billed if the consumer is not responsible for the mistake.¹¹⁹ However, in Norway it is provided that the supplier can ask for supplementary payment for actual consumption for a period of maximum 3 years when it was being discovered that the calculations were too low, while the consumer is

¹¹² See card n. IT000571. But for a different view see card n. IT000663, where the Italian court of first instance observes that "the supply of electricity implies a lengthy steady relation, strongly characterized by automatic and repetitive performances which involves the issue of bimonthly bills of charge referred to the consumption reading, so that the consumer knows in advance - given the constant repetitiveness of the charge - that he will have to provide for the payment of power consumption".

¹¹³ See card n. NO000303.

¹¹⁴ See card n. IT000574. Clauses excluding or limiting set-offs are illegal in Austria, too (see card n. AT002646). In Germany counter-claims are allowed only if they are undoubted or legally confirmed (see card n. DE001462).

¹¹⁵ See card n. AT002647.

¹¹⁶ See card n. IT000663.

¹¹⁷ See cards n. AT002197, AT002605, AT002644, AT002645.

¹¹⁸ See cards n. IT001094, GB000683

¹¹⁹ See card n. ES000765.

entitled to a refund corresponding to the amount of extra time the mistake has caused, however for a period of time no longer than 10 years.¹²⁰

In the field of liability for interruption of supply or voltage variation the case law shows a great variety of national solutions. Two reasons explain this result. Firstly, the rules on contractual and extracontractual liability apply to this kind of controversies. Therefore, the courts interpret the terms on suppliers' liability according to general contract law. Secondly, exclusion clauses can be regulated more or less strictly in the national statutes implementing dir. 93/13/EC. It is useful to summarize the different solutions in the following table:

Table 3 – Legal validity of liability clauses in electricity and gas contracts

Country	Legal validity
Belgium	Liability in case the continuity of public service is violated, but not for minor faults
France	Limitation is not valid, even for contracts with businesses
Germany	Limitation valid if the damage is not intentional or grossly negligent; in any case, statutory limit of compensation at DM 5000
Italy	Liability if the damage can be attributed to the supplier
Netherlands	Limitation unfair
Norway	In case of breach of safety invalid limitation to negligence for indirect and consequential losses
Portugal	No limitation for personal injuries, non-contractual material damages on goods of the party or of a third party, unfulfillment of the contract in cases of serious default, acts of employees and representatives in cases of serious default
United Kingdom	Liability for foreseeable losses, but not for loss of profits if the contract is with private dwelling
Austria	Limitation invalid for intentional or grossly negligent damages, or for personal injuries

It is clear from table 3 that the extent of suppliers' liability is largely dependent on the interpretation of vague legal concepts like “grossly negligent” or “foreseeable”.

¹²⁰ See card n. NO000128. An Italian court accepted the following clause in the standard conditions of the former monopolist (card n. IT000582): The costs connected to meter inspections required by the user are to the charge of the user if mistakes are comprised between the limits established by the CEI regulations. If they are not so, they are the responsibility of ENEL S.p.A., which shall reconstruct the energy consumed on the basis of the error percentage actually ascertained, from the moment in which the irregularity occurred, if identifiable, or, otherwise, from the month in which the inspection was carried out.

Apparently, Belgium, France, Italy, the Netherlands, Norway and Portugal display a regime more favourable to the consumer. However, this general observation can be quickly reversed if a national court decides to charge the consumers with a more onerous burden of proof.

Together with the primary obligations to deliver electricity or gas and to pay the price, secondary obligations can be included in the contract. Sometimes they have been deemed unfair because they are detrimental to the consumer. The first example is the joint liability of the old and the new consumer. This clause is invalid in Austria.¹²¹ Another case relates to guarantees. Their function is to cover the supplier against the risk of insolvency, but they are valid only if there are weighty reasons to demand additional security.¹²²

A further example relates to the right of the supplier to occupy the consumer's premises with his equipment, as well as to access the same premises for inspection. While occupation is generally allowed,¹²³ there are limits to the right of access without the consent of the consumer.¹²⁴ Standard conditions also provide for the duty to maintain the equipment on behalf of the consumer.¹²⁵

Finally, the clause that allows the supplier to hand over his contract to another company is valid in Italy and unfair in Austria and Portugal.¹²⁶ In Italy the clause which excludes the option for the consumer to transfer the contract to a third party is deemed unfair.¹²⁷

As far as unilateral modification by the supplier is concerned, conferring this right is deemed acceptable only if there are objective reasons, they are independent from the will of the supplier, are described in the contract and there is an adequate advance notice to the consumer.¹²⁸

Let's now turn to the grounds for termination of the contract by the supplier. In Belgium the legal concepts of abuse of power and abuse of process have been applied to stop the supplier from cutting off the power. Relevant factors are the monopoly

¹²¹ See cards n. AT002199, AT002648.

¹²² See cards n. FI000003, NL000006.

¹²³ In Italy with appropriate compensation: see cards n. IT000569 and IT000662.

¹²⁴ See cards n. IT001087, NL000051.

¹²⁵ See cards n. IT000577, IT000578, IT000665.

¹²⁶ See resp. cards n. IT000575, IT000664, AT002649 and PT000014.

¹²⁷ See card n. IT001090.

¹²⁸ See cards n. FI000249, IT000573, IT000576, IT000579, IT001085, PT000015, GB001355, AT002160, AT002161, AT002200, AT002602, AT002603, AT002604.

situation, the age of the consumer, his financial condition as well as his good faith.¹²⁹ Moreover, the consumer must, before the suspension is applied, be able to defend himself of the claim that he has not paid without any good reason.¹³⁰ In Italy the prevailing case law allows suspension or interruption in case of non payment, but considers unfair the clause that permits the supplier to extend such measures to other services provided to the same consumer.¹³¹ In Norway the consumer that cannot pay should be given the opportunity for a suitable arrangement.¹³² It should be remembered that the case of non payment is regulated by specific rules in many countries. Therefore, it escapes judicial control according to the unfair terms legislation.

It is interesting to assess the national perspectives in the field of contract duration. In Norway a provision regarding 12 months binding period from the cancellation date was not unfair.¹³³ On the other hand, in Germany a contract that runs for 36 months and extends 36 months at a time, unless it is cancelled three months before expiration, is deemed unfair. The unreasonable disadvantage, which lies in a substantial extension of the contractual binding, cannot be compensated by a general "low priced" tariff. A lower price for the customer does not change the fact, that the electricity-supplier's running period regulation interferes with the facilitated change of the electricity-supplier that was pursued by the legislator.¹³⁴ In a similar vein, an Italian court decided that a gas contract concluded for a term of 5 years and a minimum consumption of 4000 litres violated the Italian antitrust law because it prevented the customer from negotiating with third parties for a long time.¹³⁵

The analysis of the case law shows that, among European countries, the control on unfair terms in electricity and gas contracts is far from homogeneous. Differences are apparent for the conclusion of the contract, the interpretation of the transparency requisites, the legitimacy of extra charges and additional obligations, the modalities of payment, the limitation of suppliers' liability, the termination in case of non payment. These divergences depend in part on the lack of uniform implementation of the unfair

¹²⁹ See cards n. BE000083, BE000084, BE000086, BE000087, BE000091, BE000092, BE000093.

¹³⁰ See card n. BE000095.

¹³¹ See cards n. IT000588 and IT000589 (disconnection terms unfair), IT000668 and IT001092 (disconnection allowed), IT000587 and IT001093 (disconnection of other services forbidden).

¹³² See cards n. NO000020, NO000304.

¹³³ See card n. NO000106.

¹³⁴ See card n. DE002552.

¹³⁵ See card n. IT001207.

terms directive. However, they are often linked to deeper differences in the substantive and procedural laws of European countries.

What we are confronting here is a problem common to all other economic sectors in which the EU is trying to build a single market. Because of diverging national controls on standard terms, energy firms cannot use the same contracts all over Europe. The additional costs they face could discourage entry in new markets. Therefore, together with other traditional entry barriers, the lack of a uniform regulation of standard terms hampers the development of competition in retail energy markets.

Two possible solutions could be devised. The first is the negotiation of a European standard contract. This possibility was advanced by the European Commission in 2003 as one of the options to be explored within the debate on the development of a European contract law. In 2005 the Commission recognized that such proposal could face serious hurdles. For example, the differences among mandatory rules in national laws would force the European standard contract to comply with the most restrictive ones. This means that the common terms will be unattractive for businesses from more permissive jurisdictions. Moreover, the European Commission expressed its doubts about the amount of resources that would be needed to update constantly the standard terms, as well as about the willingness of European firms to invest in such an endeavour.

In the academic literature the proposal for European standard contracts has both supporters and detractors. It has been suggested that a common standard contract could be negotiated through a procedure that recalls collective bargaining in labour relations. Businesses would be interested in taking part to such a procedure because the fairness of common terms would be difficult to challenge in courts. On the other hand, consumers' representatives would be able to influence the content of the terms and to accept only those that balance the rights and obligations of the parties. As to the possible anti-competitive effects of this solution, it has been observed that firms do compete on a limited number of terms. The standardization would concern only those terms which consumers usually do not know and firms have no interest in communicating. Therefore, enough space would be left for differentiating the offers with respect to more salient aspects of the contractual relationship.¹³⁶

¹³⁶ See COLLINS (2004).

Various objections have been raised against the proposal of European standard contracts. Firstly, linguistic differences could produce diverging interpretations. Secondly, the links between standard terms and the national legal frameworks could nullify any advantage of a common point of reference. Thirdly, the lack of representative organizations could make it difficult to reproduce in every economic sector the same bargaining process developed in the employment field.¹³⁷

A second solution to the lack of uniformity in the national control of unfair terms has been suggested by the European Commission at the beginning of 2007. The Green Paper on the review of the Consumer Acquis lists, among the strategies that could be pursued, the introduction of a horizontal instrument that would apply to all consumer contracts. To solve the problem of fragmented implementation of European directives in national laws, the new instrument should shift from minimum to full harmonization. Of course, this approach would modify the level of consumer protection in some Member States. Moreover, it would transfer to the European institutions most of the powers in the field of consumer protection.

At the moment, it is unclear whether such proposal will be widely supported. However, a horizontal instrument is not incompatible with, and could even simplify the adoption of, a European standard contract. If a substantial uniformity could be achieved on the side of unfair terms, the negotiation of a standard contract would not have to worry about national differences. Of course, the lack of representative organizations would still be a problem. However, it must be noted that interesting experiences of standardization have already taken place in energy markets. The European Federation of Energy Traders (EFET) has drafted a standard contract for the wholesale electricity market since 2000.¹³⁸ In the US, the North American Energy Standard Boards (NAESB) is developing standard rules for retail contracts in the electricity and gas sectors.¹³⁹ These examples suggest that the task of developing standard terms for liberalized energy markets does not face insurmountable obstacles. The strategy of co-regulation, in which the public authorities help to organize consumer groups, provide technical

¹³⁷ See WHITTAKER (2006). Further reflections on this topic can be found in MCKENDRICK (2004) and COLLINS et al. (forthcoming 2007).

¹³⁸ The text is available at www.efet.org.

¹³⁹ See the materials available at www.naesb.org. On the role of NAESB see, generally, BOSWELL e CARGAS (2006).

assistance and compel compliance with standardized terms could be the best starting point for this innovative solution.

Even though collective bargaining procedures prove to be unavailable, the economic analysis of contract and corporate default rules suggests another route to standardization. The central idea is to exploit the signalling power of penalty default rules.¹⁴⁰ In general, they are rules laid down by legislators or regulators with the explicit intention to favour one category of contracting parties. They can be contracted around by those that prefer different solutions, but the bargaining activity required to achieve such result forces the disfavoured party to disclose her private information. Now suppose that the Commission or NRAs enact a standard residential energy contract strongly unbalanced in favour of energy consumers. It could become a penalty default rule energy companies are free to contract around. However, their decision not to adhere to the official standard should be adequately publicized. For example, those companies that do not contract around can put a certification mark on their website and their bills.¹⁴¹ Conversely, those companies that do contract around should inform their customers with an explicit statement to be displayed on their websites and bills. The foreseeable effect of such measure is that many energy companies will not opt out of the official standard and could even turn it in a marketing tool.

At the end of the day, it is clear that a truly European energy market cannot tolerate wide divergences in retail contracts.

7.4 Evaluation

This chapter shows that most partner countries supplement general contract and consumer law with more specific protective measures. Of course, such measures can partly be explained by the lack of competition in those countries that did not complete the liberalization of residential markets. However, we can also uncover additional reasons why general contract and consumer law risks being inadequate to protect energy consumers. Its rules usually employ vague formulas aimed at catching many different unfair practices. Therefore, they leave to the judge the task to interpret their meaning ex

¹⁴⁰ This notion was first discussed by AYRES e GERTNER (1989). See also AYRES (2006).

¹⁴¹ This is akin to the marks widely adopted in electronic commerce to foster trust: see, e.g., HADFIELD (2005).

post. Such a control strategy inevitably produces a state of uncertainty until enough cases are litigated and dominant interpretations become settled. It is suggested that newly born residential energy markets can not tolerate any uncertainty as to the fairness of the most important contractual terms.

The inquiry in the CLAB database highlights an additional problem. Differences in the interpretation of unfair terms statutes by national courts lead to diverging assessments of the most common terms in energy contracts. It cannot be excluded that such differences could hamper the development of competition on a continental level. A European standard contract could be the answer, but its drafting is far from easy.

Another and more fundamental reason for regulatory interventions on contract terms is the difference between protecting consumers and fostering competition. While the two objectives frequently overlap, it is by no means clear that it is always so. Take, for example, consumers' termination rights in energy supply contracts. Allowing the consumer to exit from the contract at any moment frees her from the constraints of unfair terms, but could hamper those suppliers who would like to offer fixed term, fixed price contracts. Because of the possible conflict between competition and consumer protection, it would be preferable to give NRAs the power to regulate ex-ante the most important terms. Relying exclusively on the ex-post assessment of generalist courts without a detailed knowledge of energy markets could result in less balanced outcomes. A good example of the kind of considerations needed to assess the relationship between price and contractual obligations can be found in the study of the Belgian federal regulator mentioned in paragraph 7.2.1 above.

Several suggestions can be drawn from the above remarks. As far as the consumers' termination rights are concerned, behavioral biases, search and switching costs all push in direction of too much inertia. At least in the first period after complete opening of the residential markets it would be preferable to forbid any constraint on termination. There is no reason to suppose that, because of such measure, suppliers will not be able to tailor their offers to customers' preferences. No one will terminate a long term contract that shields from price volatility, provided it does not deviate too much from wholesale

prices. Of course, suppliers will bear some additional market risk, but they are in the best position to cover against it through financial instruments.¹⁴²

Disconnections procedures are strongly intertwined with the presence of a supplier of last resort and with measures aimed at protecting vulnerable customers. While forbidding disconnection would impose too much risk on suppliers, it would be useful to draw some guidelines as to the procedure to be followed for those consumers who cannot afford to pay their bills. Useful examples are the guidelines for preventing debt and disconnection published by Ofgem in January 2003 and the industry-wide safety net procedure for vulnerable consumers developed by the British Energy Retail association in 2004.

Finally, unilateral modifications could be uniformly regulated across Europe. The main points of such regulation should be laid down as indicated in paragraph 7.2.3 above.

¹⁴² See ROSSI (1998) for considerations about the informative advantage of suppliers as to the evolution of market prices.

8. Quality of supply

This chapter discusses the regulation of continuity of supply and commercial quality in partner countries. We first describe the main characteristics of quality regulation in each country, then try to assess its impact on consumers' welfare. Finally, we describe the measure and type of compensation paid to energy consumers when quality standards are not met. The analysis in this chapter draws in part on CEER and ERGEG reports, but tries to update and complement it whenever possible.

8.1 Quality regulation in partner countries

Table 8.1 below shows that most partner countries provide for some kind of quality regulation. However, the details vary widely from one country to another. These differences have been already underscored in CEER Reports. We now summarize the main legislative and regulatory provisions for each partner country.

Table 8.1 – Quality regulation in partner countries

Country	Continuity	Commercial Quality
Austria	No	Yes
Belgium	Yes	Yes
Bulgaria	Yes	No
Czech Republic	Yes	Yes
Finland	Yes	Yes
Greece	No	No
Italy	Yes	Yes
Lithuania	Yes	Yes
Slovak Republic	Yes	No

In **Austria** E-Control does not have the power to regulate continuity of supply. However, statistics about interruptions and outages are collected. New legislation on commercial quality was enacted in 2006.

In **Belgium** the regional legislators included continuity and quality of supply among the public services obligations the distributors shall implement. In the **Walloon Region** the technical regulations for the electricity and gas distribution networks ask the network operator to send CWAPA an annual report which includes information about continuity and quality of supply.¹⁴³ In the **Flemish Region** the VREG audited the procedures applied by the distributors to collect data on quality performance. The results were used to draft a service level agreement with key performance indicators.

In **Bulgaria** art. 4(2.4) Law on Energy gives the Minister of Energy the power to issue orders defining the indicators on the reliability of electricity supply. In the gas sector art. 190 states that operators of distribution networks shall ensure distribution of natural gas to consumers while adhering to safety instructions and quality requirements. Terms and conditions for activities of transmission and distribution networks operators shall be stipulated in an Ordinance issued by the Minister of Energy. According to art. 21.12 SEWRC develops and controls compliance with the rules on supply of electricity, heat energy and natural gas to consumers, including the quality of service standards. Art. 88 of the 2004 Ordinance on licensing of activities in the energy sector provides that quality of supply indices shall be determined by resolution of the Commission. The particular values of the quality indices and the time frame for reaching these normative values shall be determined for every licensee by resolution of the Commission and shall become provisions of the license. Finally, chapter eight of the Grid Code establishes the procedures the Power System Operator shall follow for managing the quality of the power system.

In the **Czech Republic** sec. 17(7)(a) Energy Act 2000 gives ERU the power to lay down regulations on the required quality of the supplies and services relating to the regulated activities in the electricity and the gas sector, including the amount of compensation for non-compliance with quality standards, time limits for claiming the entitlement to receive compensation, and procedures for the reporting on compliance with the quality of supplies and services. Quality standards were strengthened by the new regulations for electricity (n. 540/2005) and gas (n.643/2004).

¹⁴³ See sec 5 of Arrêté du Gouvernement wallon of 16 October 2003 relatif au règlement technique pour la gestion des réseaux de distribution d'électricité en Région wallonne et l'accès à ceux-ci; sec. 5 of Arrêté du Gouvernement wallon of 18 November 2004 relatif au règlement technique pour la gestion des réseaux de distribution de gaz et l'accès à ceux-ci.

In **Finland** the Electricity Market Act states that the system operator has an obligation to develop the electricity system, which means that it has to secure the supply of sufficiently high-standard electricity to its customers (sec. 9). Moreover, the Act provides for standard compensation upon delay in connection and for interruptions.¹⁴⁴

In **Greece** as regards the Transmission System, specific procedures, indicators etc, for quality of service regulation are not stipulated, since it is rare for power quality on the Transmission System to become a ruling factor on service quality of downstream distribution networks and their customers. Such regulation falls under the general authorities vested in the Regulator, with respect to monitoring and assessing the performance of HTSO in carrying out system and market operation. Network performance and quality of service standards and obligations have not yet been set for the Distribution System Operator, due to the lack of the Distribution Network Code, which is currently under preparation and is expected to be enforced by mid-2007. Under the existing legislation, there is no procedure for the formal evaluation of the quality of service offered either by the Transmission or the Distribution system operators.

In **Italy** an advanced system of quality regulation has been introduced since 2000, both in the electricity and the gas sectors.¹⁴⁵ As to the former, rules concerning unplanned interruptions of more than three minutes (defined as “long interruptions”) were introduced for the period 2000-2003 with AeeG res. n. 202/1999, subsequently updated by AeeG res. n. 4/04. Two objectives loomed large in the new regulations: 1) to bring the average continuity standard in Italy closer to the best average levels found in other European countries, in a time as short as possible; 2) to reduce the gaps among Italian regions after adjusting for the degree of user concentration, without impairing the situation in regions that currently have the best continuity standards. AeeG laid down a system of distributor incentives and fines, determined in relation to the specific continuity target set for each year. The mechanism also provides incentives for areas that improve beyond their targets, and fines for those whose results are negative, with a 5 percent leeway in either direction that gives rise neither to incentives nor penalties. New incentive mechanisms for short (less than three minutes) and prolonged or extended interruptions will be introduced in 2007.

¹⁴⁴ On quality regulation in Finland see also TAHVANAINEN (2004).

¹⁴⁵ For an evaluation of the Italian system of quality regulation see AJODHIA et al. (2006).

In the gas sector the continuity aspect of the service is regulated together with safety. Safety refers to the protection of people and things from damage due to explosions, bursts and fires caused by distributed gas. Key safety features include the artificial odourization of gas so that its presence in the air can be detected; the reduction of gas leaks through the inspection of distribution networks and the cathode protection of steel pipes; and the establishment of an emergency response service.

In late 2000, the Authority issued res. n. 236/00, which established regulations for the safety and continuity of the gas distribution service. The resolution introduced a system of obligations and checks to regulate the safety and continuity of the service, and set country-wide basic and benchmark levels for each of the safety and continuity indicators for 2002-2003. Distributors were encouraged to improve their safety and continuity standards through the Authority's publication of comparative data on the levels achieved and of the scores, broken down by indicator, for each plant and distributor.

For the second regulatory period Aeeeg res. n. 168/04 improved safety standards: in addition to the mandatory scheduled pipe inspections for the detection of gas leaks, the regulations introduce response time monitoring for the elimination of gas leaks at installations and meters, and fines for companies whose emergency response teams fail to reach the site of the problem within the maximum allotted time. Also, to reduce the risk of gas leaks, old cast iron pipes will have to be entirely replaced or restored within a 10-year time frame, and at least 30% of that work will have to be completed within the next four years. Monitoring is now in place for gas utility call centres, with a greater focus on complaints and on indemnities paid to end customers for the sake of easier comparison of utilities; the ultimate purpose of this is to help consumers choose the gas company that best suits their needs. The quality data submitted by utilities will be more easily verified through a new, standardized data control method, and companies that fail to comply with the Authority's directives will be fined.

Aeeeg dec. n. 243/05 introduced a system of incentives for improvements to the security of the natural gas distribution service. This rewards virtuous conduct by operators providing a service featuring higher security standards than the minimum standards established by dec. n. 168/04. The new system of incentives rewards reductions in gas leaks, increased numbers of checks on the degree of odourisation, and

a reduction in the number of gas-related incidents in distribution plants. For 2006-08, participation by distributors is voluntary, while from 2009 the system will gradually become compulsory, with the incentives being accompanied by penalties for failure to achieve the obligatory pre-determined improvement standards.

The incentive scheme has two components: the first related to odourisation (rewards for operators carrying out more than the minimum annual number of checks set by the Aeeg) and the second related to leaks (rewards for reductions in the numbers of leaks located following reports by third parties). For the component relating to leaks, an annual improvement rate has been set with respect to the average level for the period 2003-04. To apply these incentives, distribution plants are divided up on the basis of concentration of consumers connected to their networks. For each of the three categories (high, medium and low density) and with reference to the component envisaged for leaks, target levels have been set for attainment by 2016, along with benchmark levels (of excellence) above which rewards are not given. These target and benchmark levels will be reviewed and possibly revised at the end of the three-year period 2006-08 in the light of the improvements actually achieved. In the event of a gas-related incident for which the distributor can be held responsible occurring in a distribution plant, a penalty equating to the reward applicable to that plant will be applied. The Aeeg's provision envisages a ceiling on the incentives allowable, amounting to 2% of the distribution revenue constraint approved by the Aeeg.

Commercial quality standards have been laid down by Aeeg in the electricity and gas sectors. The main features of the regulatory framework are: 1) national standards of quality that apply to all utilities; 2) automatic refunds paid by utilities that fail to meet guaranteed quality standards for any reason other than force majeure or causes attributable to the customer or third parties; 3) procedures for recording speed of service are now uniform, eliminating the discrepancies in measurement between one utility and another.

In the electricity sector, standards of commercial quality were revised with the unified code on quality issued with Aeeg res. n. 4/05. New and more specific standards were introduced to monitor different dimensions of electric services. In 2007 new standards for telephone services will be introduced. In the gas sector the regulation of commercial quality was first introduced with Aeeg res. n. 47/00. In the second

regulatory period it was superseded by the unified code for the quality of gas services, issued with Aeeg res. n. 168/04.

In **Lithuania** on July 15, 2005 the Ministry of Economy issued the Order no. 4-265, approving the Electricity Transmission and Distribution Reliability and Supply Service Quality Rules, setting the quality of service standards and requirements for the monitoring of the consequent indicators. National Control Commission for Prices and Energy (NCC) is empowered by the Law on Electricity to monitor the transmission and distribution reliability and supply service quality standards and control the compliance of the network companies with the above standards. It is planned that the Commission will evaluate compliance with the quality of service standards setting the next price caps for the network companies in 2008.

In the gas sector, pursuant to the Rules for Transmission, Distribution, Storage and Supply of Natural Gas approved by the Government of the Republic of Lithuania, the Ministry of Economy is authorized to approve the quality requirements for licensed activities, and the NCC – to ensure the control over fulfillment of the aforementioned requirements. The Quality Requirements for the Licensed Activity Services have not been still prepared. However, the price cap methodology laid down by NCC in 2005 provides an incentive mechanism that reduces the standard profit margin to the firms with worsening service quality and continuity of supply.

In the **Slovak Republic** sec. 15 Energy Act 2004 gives the Ministry of Economy the power to impose on energy companies obligations in the general economic interest. Such obligations can be related to security, reliability and quality of electricity and gas supply. URSO started to work on a regulation laying down the quality of transmission and distribution of electricity and provided services in the power sector. The methodology for standard indicators SAIDI, SAIFI which quantify fulfilment of this task has been developed. After consultations with experts analyses of share of SAIDI and SAIFI were made according to voltage levels. Success rate of measures adopted by the relevant distribution companies is demonstrated by evaluation of SAIDI and SAIFI indicators. In the gas sector, in connection with securing quality of performance of the network operators, the Office regulation on quality standards of supplied products and provided services in the gas sector is currently prepared for approval. This regulation deals also with the issue of quality indicators.

8.2 The impact of quality regulation on consumers' welfare

As emphasized by CEER Reports, reliable measurement protocols are crucial for quality regulation. They are the preliminary step for setting standards and introducing incentive systems. Moreover, the publication of data on continuity and commercial quality allows both the regulators and final customers to control for the impact of the liberalization process on these two aspects. Unfortunately, only a few partner countries make available to the public data on quality of supply. Therefore, we can only make a tentative assessment of the benefits gained by energy consumers since the beginning of the liberalization process. As far as continuity of supply is concerned, the performances of the best European countries, reported by CEER, can be employed as a benchmark. The two most important indicators for continuity are SAIDI (System Average Duration Interruption Index), which shows how long, in a given year, energy is not supplied, and SAIFI (System Average Interruption Frequency Index), which shows how many times in a year energy is not supplied. For SAIDI the best performances are below 100 minutes per year, for SAIFI the best performances are about 2 interruptions per year. Let's now turn to the analysis of data from partner countries.

In **Austria** E-Control reports that in 2004 average unplanned interruptions per customer were 30.33 minutes (51.04 including planned interruptions), with an improvement from 2002. According to CEER, in the same year no other country performed better than Austria on this indicator.¹⁴⁶ In 2005 mean non-availability caused by unplanned interruptions was 31.35 mins/year.

An entirely new development was the introduction of standards for the commercial quality of system services on distribution systems in the gas market rules that came into force on 1st January 2007. They included the principle whereby it will be possible to obtain independent certification of compliance with quality standards.

In **Belgium** there weren't any significant variations in the continuity indicators after the beginning of the liberalization process. In the **Flemish Region** in 2004 the average number of interruptions per customer were 0,527, with average duration of 41 minutes and 47 seconds. In the same year the average time lost was 22 minutes and 13 seconds.

¹⁴⁶ See CEER (2005a, p. 116).

In the **Walloon Region** the average time lost in 2005 was 67,55 minutes. In the **Brussels-Capital Region** the average time lost in 2004 was 22,11 minutes in 2004, which decreased to 21,38 in 2005.¹⁴⁷

In the **Czech Republic** some improvements of continuity of energy services after the beginning of the liberalization process are reported. The distributors started to compete among them and made efforts to attract more customers. There are less failures of supply, the renewal is faster, there is more information available on websites. For the three largest electricity distributors, in the voltage level of households (up to 1kV) SAIDI values range from 46 to 5.518 minutes per year. SAIFI values range from 0.308 to 1.014.¹⁴⁸

In the gas sector the transport, distribution and storage operators are obligated to submit a report once a year on the quality and maintenance of the transmission and distribution systems and UGS facilities pursuant to Section 58, subsection 9(y), Section 59, subsection 8(z), and Section 60, subsection 7(p) of the Energy Act. The content of these reports is specified in the MIT's and ERO's Common Methodological Guidelines (on the content of reports to be submitted by the TSOs, DSOs and SSOs on the quality and maintenance of the installations they operate), which are publicly available on the respective websites. No serious problems with service quality have been reported to date.

In **Finland** average interruption time per customer was 174 minutes in 2005 (including planned and unplanned interruptions), higher than in previous years. Because of the relevance of external events (weather or animals) it is not clear whether this performance could be improved with a stricter quality regulation. A survey conducted by Epsi Rating in 2005 measured customer satisfaction on various dimensions of service quality, like information during power cuts and complaint handling. No company reached the top of the scale and some fared quite badly.

In **Greece** there are conflicting data on continuity of supply. On one hand, RAE reports that in 2003 there were 13,904 minutes of unplanned interruptions per customer, while 8,081 minutes per customer were lost because of planned interruptions. On the other hand, CEER reports that in 2003 there were 108 minutes lost for unplanned

¹⁴⁷ CREG, *Rapport Annuel 2005* cit., p. 22f..

¹⁴⁸ *The Czech Republic's National Report on the Electricity and Gas Industries for 2005*, July 2006, p. 15.

interruptions and 87 minutes lost for planned interruptions.¹⁴⁹ It is plausible to suppose that such differences are due to the lack of reliable measurement protocols. In any case, there aren't historical data that allow to verify whether continuity of supply has been improving in the last years. As far as commercial quality is concerned, percentages of failure rate for the most important standards are reported by the former monopolist, but they cannot be verified by RAE.¹⁵⁰

In **Italy** the results achieved during the first phase of economic regulation for long, unplanned blackouts indicate that the rules were effective in reducing the number and length of power outages. The new system has also been highly successful in reducing geographical disparities, especially between the northern regions and those in central and southern Italy. The continuity figures show that the total length of outage per customer, counting both short and long, unplanned interruptions, fell from 104 minutes lost in 2003 to 64 minutes lost in 2006, with an improvement from 1999 of 67%. The improvement in the total blackout duration per customer also entailed a benefit in terms of the number of interruptions per customer, which dropped from 2,7 in 2003 to 2.39 in 2006 (37% less since 1999).¹⁵¹ It should be added that the improvement in service raised tariffs by very little. On the basis of a simulation conducted by AeeG, for the entire period 2000-2003 the estimated tariff hike due to the incentives, net of fines paid by utilities that fail to meet their continuity targets, was less than three euro per year per customer.

Regulation of continuity in the gas sector achieved moderately successful results. From 2002 to 2003 the total number of long and short interruptions and of customers involved increased, but in 2004 there was a reduction of about 24% in the total number of interruptions and of about 25% in the number of customers involved. In 2005 a new incentive system was introduced that takes into account the percentage of network inspections, the number of emergency calls and the average response time and the number of leaks.

As far as commercial quality is concerned, in the electricity sector it seems that AeeG pushed firms to improve their performance.¹⁵² Compared to the pre-liberalization

¹⁴⁹ See, respectively, RAE, *Annual Report 2005 to the European Commission*, p. 16 and CEER (2005a, p. 116).

¹⁵⁰ See ERGEG (2005a, p. 14).

¹⁵¹ Data on continuity of supply are available on the AEEG's website.

¹⁵² See the data reported in AEEG, *Annual Report 2006*, p. 50f..

period, the number of refunds actually paid to customers because of substandard service has risen sharply. Moreover, in 2005 the cases of non-compliance with guaranteed quality standards are generally lower than 4.5% and, for several types of services (connections and disconnections, punctuality as far as personalized appointments are concerned), it is lower than 1%. The standard relating to invoicing was introduced during 2004 as a guaranteed standard which is subject to compensation, to remedy the critical points stemming from the use of the previous guaranteed standard on deadlines; the move from an overall to a guaranteed standard seems to have produced positive effects, given that as early as 2005 there was a significant reduction in the percentages of non-compliance with the standard (from 15% to less than 11%), while further improvements are expected in the coming years.

As far as the average time for the completion of the service is concerned, in 2005 it was about 2/3 of the maximum time set by the regulator. In the same year, overall standards were generally respected. The only exceptions were the time for responses to complaints and requests of information on distribution and voltage checking.

In the gas sector the new regime had a positive impact: in the 2001-2005 period there is a clear declining trend in substandard services, in spite of an increase in the number of services requested. In contrast, there was a mild improvement in service connections. For all of the services subject to guaranteed or overall standards, the Authority checked the actual average execution time based on the figures provided by the operators. The actual average times for the services subject to guaranteed standards are equal to 50% of the standards set by the Authority. For estimates and the execution of works, the phenomenon is even more accentuated. With regard to the management of complaints received by suppliers, the standard set by the Authority, according to which at least 90 percent of written complaints or written requests for information be responded to within 20 working days, was generally adopted. Refunds paid to customers increased significantly.

In **Lithuania** a significant increase in the average number of minutes lost and number of interruptions per electricity customer was registered between 2002 and 2004. Worsening of continuity of supply can partly be explained by the introduction of more reliable measurement systems. However, actual data were very far from the best performing European countries. In 2005 the SAIDI (System Average Interruption

Duration Index) was 147 and 600 minutes for the two most important regional distributors, while the SAIFI (System Average Interruption Frequency Index) was 1.1 and 2.4, respectively.¹⁵³ There were no significant improvements with respect to the previous year.

In the gas sector, after inspection of principles for collection and classification of information on the planned and unplanned gas supply interruptions and reviewing the reporting of such information, from 2004 on, the largest natural gas undertaking in Lithuania Lietuvos Dujos AB started including the reports on short-term gas supply interruptions due to technical inspections of gas systems in buildings into its accounting system of data about the planned gas supply interruptions.

In 2005 the average planned natural gas supply interruption number was 0.2335 per system user and the average duration of such planned interruptions was 2.0658 minute. The average number of unplanned gas supply interruptions was 0.00512 per system user, whereas the average duration of such unplanned interruptions was 0.1395 minute per system user. In 2004 the average duration of unplanned supply disconnections per system customer was 0,064 minutes, while the average number of unplanned supply disconnections per system customer was 0.005 minutes. The restoration of the supply of natural gas to 99.8 percent of all customers was effected in less than 8 hours, for the remaining customers, in less than within 24 hours. In carrying out the planned disconnections of supply, the supply of natural gas in all cases was restored before than it was scheduled.

As to commercial quality, in 2004 64 percent of the applications of the customers received by Lietuvos Dujos AB requesting to connect to the distribution gas-main were examined in less than 30 days. Sixty-nine percent of the applications of customers were satisfied, 70 percent of the customer system connection agreements were fulfilled within the prescribed period, whereas 7.5 percent remained not fulfilled within the foreseen term due to the fault of customers.

In the **Slovak Republic** the Office has at its disposal data for the Central Slovakian regional distribution company, SSE, a. s., for which in 2005 SAIDI represented 192.15 min per customer and SAIFI=3.59 long failures (failures with the

¹⁵³ *Annual Report on Electricity and Gas Markets in Lithuania Prepared for the European Commission*, Vilnius, 2006, p. 22ff..

duration exceeding 3 minutes) per customer. These indicators are average per customer and all voltage levels.

8.3 Compensation provided to residential consumers

It is clear that quality regulation would be useless if firms would not be penalized when they do not comply with the standards. Two mechanisms can be devised to this end: an incentive system, such as that laid down in Italy, that sets up fines and incentives for distribution companies, or refunds to be paid to damaged customers. These two mechanisms are often combined. In this paragraph we are interested in describing the rules that give residential consumers the right to be compensated when energy companies do not comply with quality standards. These rules are usually laid down in the energy statutes and regulations, but sometimes general contract and tort law can be invoked.

In **Austria** there is no system for the reimbursement or compensation of residential consumers in case of justified complaints. However, sec. 34 of the Natural Gas Act provides that transmission and distribution undertakings shall be liable for any damages arising in the course of operating their plants inasmuch as persons are killed or physically injured or their health is impaired or property is damaged. Specific limits to liability have been established in sec. 35, but they apply without prejudice to any other provisions under which system operators are liable for higher losses than under the provisions of the Natural Gas Act.

In **Belgium** continuity of supply is included among the public service obligations of distributors in the three regions. In the **Walloon Region** any damages suffered by customers because of outages or voltage disturbances must be charged to the distributor, with the only exception of force majeure cases.¹⁵⁴ According to the model regulation for electricity supply to captive low voltage customers laid down by CREG in 2003, the distributor must pay damages if the client gives proof of its fault, of the measure of

¹⁵⁴ See sec. 18(3) of Arrêté du Gouvernement wallon 30 March 2006 relatif aux obligations de service public dans le marché de l'électricité and sec. 19(3) of Arrêté du Gouvernement wallon 30 March 2006 relatif aux obligations de service public dans le marché du gaz.

damages and of the causation link. In case of damages to things, they must be paid by the distributor if exceeding a threshold of 245 euro.¹⁵⁵

In **Bulgaria** continuity and commercial quality standards are included in the general conditions written by energy companies and approved by SEWRC. Moreover, the law on energy states that energy companies are not liable to pay compensation for damages, caused by a scheduled outage regime, temporary interruption or limitation of generation or supply of electricity, heat energy and natural gas, except for the cases when breakdowns or lasting shortages have occurred through their fault.¹⁵⁶

In the **Czech Republic** ERU Public Notices No. 18/2002, on the conditions for connection and electricity transport in the electricity system, and No. 540/2005, on the quality of supplies and related services in the electricity industry, provide for the TSO's and DSOs' obligation to connect customers and continuously supply them with electricity at a high level of quality. Low voltage customers disconnected for more than 18 hours (12 hours for high voltage customers) can claim a compensation within five working days. Its amount corresponds to 10% of yearly payments for distribution, with a maximum of 150 euro for LV and 300 euro for HV customers. Compensation ranging from 15 to 160 euro can also be requested when energy companies do not comply with other quality standards. Section 25(8) Energy Act 2000 excludes the liability of the distributor when he is entitled to limit or interrupt the supply of electricity because of emergency or system reliability problems. However, this provision shall not apply if the distributor fails to give notice fifteen days in advance or does not remove defects in distribution or transmission facilities.

In the gas sector an ERO public notice is being drafted for the legislative process; it will focus in detail on the monitoring, assessment and publication of the quality standards prescribed, and on the penalisation of failures to keep such standards. It will contain similar quality-related provisions as the one on quality standards in the electricity industry currently in place.

¹⁵⁵ EURELECTRIC (2004, p. 28) points out that in case the client concludes the access contract the liability of both parties is limited to compensation for direct material damage resulting from intentional fault or gross negligence and excluding indirect or subsequent damage (loss of production, loss of income or loss of profit). The liability will be limited to an annual amount of 5 % of the year invoice. See also the limitation of distributors' liability included in the II and III Annexes to the technical regulation for the distribution network, approved by the arrêté du Gouvernement de la Région de Bruxelles-Capitale 13 juillet 2006.

¹⁵⁶ See art. 74 law on energy.

In **Finland** the Electricity Market Act contains provisions about interruption of supply, faulty supply and delay in connection. According to sec. 27f, the user of electricity is entitled to standard compensation for continuous interruption of system service, if the distribution system operator or retailer that sells electricity to users of electricity through an internal electricity system of a real estate or a corresponding group of real estates does not demonstrate that the interruption of the system service is the result of an obstacle beyond its possibilities of influence and that cannot reasonably be expected to be taken into account in its operations and whose consequences it could not have avoided or overcome by exercising due diligence.

The amount of the standard compensation of the annual system service fee of the user of electricity is:

- (1) 10 per cent, when the interruption time has been at least 12 hours, but less than 24 hours;
- (2) 25 per cent, when the interruption time has been at least 24 hours, but less than 72 hours;
- (3) 50 per cent, when the interruption time has been at least 72 hours, but less than 120 hours; and
- (4) 100 per cent, when the interruption time has been at least 120 hours.

The maximum amount of the standard compensation because of interruption is, however, 700 euros per user of electricity. The maximum amount of the standard compensation can be adjusted by Government decree to the change in the value of money.

According to sec. 27c, any supply of electricity is faulty, if the quality of electricity or the method of supply does not correspond to what can be considered to be agreed upon. Unless otherwise agreed, the supply of electricity is faulty, if the quality of the electricity does not correspond to the standards adhered to in Finland or if there have been continuous or repeated interruptions in the supply of electricity, and these interruptions cannot be considered minor when taking into account their reason and circumstances. In case of fault, sec. 27d gives users of electricity the right to a price reduction proportionate to the fault. If the fault is based on interruption of electricity supply, the price reduction shall be at least the sum that corresponds to two weeks' share of the annual system service fee. Such reduction is excluded if the user has the

right to the standard compensation established in sec. 27f. Additional compensation can also be claimed (sec. 27e), but indirect damages are allowed only if there is negligence on the part of the distributor or retailer.

In case of delay in connection attributable to the distributor or the retailer, the user of electricity has three remedies: firstly, he can withhold payment until the connection has been made. After the connection has been made, the connecting party has the right to withhold such part of the fee as is needed to serve as security for a claim for compensation based on the delay (sec. 27). Secondly, the user is entitled to a standard compensation. For each beginning week during the first two weeks of delay, the compensation is 5 per cent of the connection fee. Thereafter, the compensation is 10 per cent of the connection week for each beginning week of delay. The maximum sum of the standard compensation is 30 per cent of the connection fee. It is, however, 1,700 euros at maximum (sec. 27a). Thirdly, the connecting party and the user of electricity are entitled to receive compensation for damage suffered because of delay, unless the distribution system operator or retailer that is party to the contract can show that the delay is caused by an obstacle that is beyond its control and that it cannot reasonably be expected to have taken into account when concluding the contract and that has had consequences which it could not have reasonably avoided or overcome (sec. 27b). The distribution system operator or retailer is required to compensate for indirect damage only if the delay or damage is caused by negligence on its part. This compensation can be added to the standard compensation provided by sec. 27a. Finally, sec. 44 states that whoever causes damage to another through an act or omission in contravention of the obligation to connect, to transmit and to deliver, or because of an interruption of electricity supply for a reason attributable to the user of electricity, shall compensate for the damages thus caused.

Terms concerning liability for interruptions are also contained in the general conditions for electricity sale drafted by the branch organization SENER (SME 99). The electricity vendor is not liable for the fault within network service (interruptions in delivery and quality faults). If the user's electricity delivery is interrupted or stopped against the conditions of sale contract due to a fault from the vendor's part, the vendor is liable for the damage thus created. The user has a right to have a compensation for an indirect damage only if the damage is caused by negligence on vendor's part. If the user

is not a consumer and there is no agreement, the vendor's liability for indirect damages is at most the sum that corresponds to the amount of one year's electricity sales tariffs, however at most EUR 8,409.40. If the vendor has caused the damage on purpose or by gross negligence the cap will not be applied. A consumer is also entitled to receive compensation for damage caused to his/her family or a member of a family on the same grounds than for a damage caused to him/herself.¹⁵⁷

In **Greece** there aren't any specific provisions (besides general contract or tort law) on the compensation of customers in case of interruptions or other quality failures.

In **Italy** automatic refunds must be paid to HV and MV customers when distributors do not comply with standard imposing the maximum number of interruptions per year.¹⁵⁸ Following some major interruptions caused by exceptional weather events in the winter of 2003-'04 and the blackout of 28 September 2003, in May 2005 the Aeg started a consultation process issuing a document that describes possible criteria and presents initial recommendations for a system of refunds to be paid to customers for long and widespread interruptions of service. The Authority recommends that customers be awarded a refund if the interruption extends beyond the resumption of service deadlines it has established. Exemptions from these deadlines would only be allowed for areas that are evacuated by order of the authorities.

If power is not restored by the deadline, customers would receive refunds in proportion to the length of the interruption. The Authority suggests the following approximate amounts: for residential customers, €30 if the standard redemption period was not complied with, to be increased by €15 for each subsequent 4-hours period. Non-residential customers would be entitled to higher refunds, partly in proportion to kW of available power. There would be caps on the refunds, which would be paid automatically and on a forfeit basis, without prejudice to the customer's right to seek damages through the courts or to institute arbitration.¹⁵⁹

Failure to comply with commercial quality standards entitles customers to receive automatic refunds. The amount of refunds is defined by the Authority, and is higher for the categories of users who pay more for energy and use of the network. In the second

¹⁵⁷ See EURELECTRIC (2004, p. 52).

¹⁵⁸ See sec. 32 and 33 Aeg dec. n. 4/04. This provision applies from 2007.

¹⁵⁹ See consultation documents of May 2005, June 2006 and January 2007.

regulatory period (2004-2007) it was set at € 30 for domestic customers.¹⁶⁰ Automatic refunds must be given by deducting the amount due from the first subsequent bill, and in any case within 90 calendar days from the initial deadline for providing the requested service. A utility that fails to meet the refund deadline has to pay double or quintuple the standard amount, depending on the extent of the delay. Payment of the automatic refund does not prevent the customer from seeking additional damages in court. A special notice to that effect is printed on the bill from which the refund is deducted.

The Italian blackout of 28 September, 2003 caused the disconnection of 32 millions households. In some parts of the country the average duration of the outage was above 1000 minutes lost per LV customer. 30.000 of them claimed pecuniary and nonpecuniary damages from former monopolist Enel and the transmission network operator before justices of peace. While claims against the network operator were generally rejected, most of those filed against Enel were successful. However, appeal courts seem to impose to customers heavier burdens of proof, disallowing damages already granted in the first instance.¹⁶¹

Enel's general conditions for electricity supply list the causes that allow the supplier to cut power: objective danger, organizational reasons (e.g. repairs, maintenance and rebuilding of facilities), security reasons, force majeure. In these cases clients cannot claim damages or terminate the contract. However, Italian case law suggests that suppliers' liability is judged according to general rules on contractual liability contained in the civil code.

In **Lithuania** in case electricity supply is interrupted or restricted to a user or electricity quality parameters on the site of provision of electricity transmission or distribution services are not in compliance with the ones specified in respective service sales and purchase agreement, the operator or supplier reimburses the direct damages incurred by such user. The operator or supplier is not bound for reimbursement of such damages to the user, when electricity supply is interrupted or restricted, or electricity quality parameters contravene the contractual ones due to the impact caused by the Acts of God or fire, war, acts of terror, Force Majeure, third person's activities (electricity theft, equipment impairment, when side items fall on overhead electricity lines, etc.), system pre-emergency automation effect (in cases of breakdowns or failures in other

¹⁶⁰ See tab. 7 in Aeeeg res. n. 4/05 for electricity and sec. 53 Aeeeg dec. n. 168/04 for gas.

¹⁶¹ See the analysis of the case law in BELLANTUONO (2006).

energy systems), due to acts of the state authorities, or when a single interruption time for a user does not exceed the longest allowable disconnection time for that particular continuity of supply category, or when respective automation or security systems disconnect power supply to the user's equipment due to the user's acts or negligence, inappropriate maintenance of its own equipment or breaches of requirements contained in applicable legal acts.

An application for reimbursement of damages must be supplied in 10 calendar days after the date of occurrence of damages. In 10 calendar days after its reception date at the latest, such application must be considered at the general commission meeting. Operator or supplier and user's representatives must participate in the work of such commission. The commission formed especially for this reason must investigate causes of interruption or restriction in electricity supply and establish the amount of the damages.

Where the parties involved fail to agree, the amount of damages must be set by court. Damages incurred due to the interruption or restriction in electricity supply must be reimbursed in 30 calendar days after the date of establishment of the value thereof.

Sec. 6.386.2 of the Lithuanian Civil Code provides that "If the energy supply enterprise violates the energy quality requirements, the subscriber may refuse to pay for the energy. However, in this case the energy supply enterprise shall be entitled to request that the subscriber compensate for the value of what the subscriber saved without a legal justification by using energy."

In the **Slovak Republic** new regulations on transmission, distribution and quality of supply were introduced by URSO in 2006.

8.4 Evaluation

The survey presented above clearly shows the many differences among the partner countries in the field of quality regulation. While most of them have been introducing new regulations in the last few years, their contents, extent and effectiveness are far from uniform. The reference to the right of household customers to enjoy the supply of electricity of specified quality at reasonable prices, inserted in art. 3 second electricity directive, is too vague to be of much help in building a regulatory system for quality of

supply. Both CEER and ERGEG are trying to foster awareness of best practices in the European context and to suggest the course of action that promises to improve the performance of energy companies as quickly as possible. Tough, we argue that various kinds of official initiatives at European Union level could ease the convergence toward common models. Our proposals are threefold:

- d) insert quality regulation among the powers to be attributed to each NRA
- e) provide that continuity of supply be fostered through incentive systems
- f) provide for mandatory automatic refunds to consumers in case of quality failures.

As to the proposal under a), art. 23 second electricity and gas directives laid down the main competencies of NRAs. They are circumscribed to those thought to be most relevant for introducing competition in the energy markets. However, quality regulation is mainly directed to the monopolistic networks and is a permanent feature of such markets. At present, the responsibility for this subject is often conferred to the ministries. Transferring it to NRAs has two advantages: it reinforces their role as technical experts and makes more transparent the links between quality and price regulation. Choosing the optimal amount of quality to deliver to customers is a difficult endeavour. Big mistakes can be avoided if this task is put in the hands of those institutions that have better knowledge of energy markets.

We suggest that the European Commission employs the power included in art. 28 second electricity and gas directives with reference to high levels of public service and submits to the European Parliament and the Council a proposal aimed at extending to quality regulation the competencies of NRAs.¹⁶²

The second intervention which we argue for [(under letter b)] is about incentive systems improving continuity of supply. Few European countries have already implemented such systems and they appear to be among the best performers. The Italian experience suggests as much. Two initiatives could be pursued: on one hand, CEER and ERGEG should be encouraged to draft more detailed proposals aimed at harmonizing the measurement protocols and at developing common indicators for incentive schemes; on the other hand, the forthcoming Charter on the rights of electricity and gas

¹⁶² The same proposal has been recently advanced by ERGEG, *3rd Legislative Package Input – Paper 5: Power and Independence of National Regulators*, 5 June 2007, p. 9f..

consumers should include specific reference to the duty to adopt incentive schemes that promote supply of good quality.

The third intervention is the easiest to justify. Automatic refunds are the best means to transfer to consumers the benefits of quality regulation. If adequately calibrated, they also push firms to make new investments that improve continuity and commercial quality. We suggest that the Charter lists the main continuity and commercial quality standards whose breach gives the customer a right to compensation. The amount of compensation could be left to the discretion of NRAs, but it should be high enough to stimulate firms to comply with quality standards.

9. Energy consumers' complaints and dispute resolution procedures

This chapter discusses the procedures that partner countries adopted for resolving disputes between energy companies and residential customers. According to Annex A second electricity and gas directives these procedures should be transparent, simple and not burdensome. They should provide fair and fast resolutions of the disputes and mechanisms of redress for consumers. Their structure should reflect the principles laid down in the Commission recommendation 257/98/CE.

A preliminary assessment of dispute resolution procedures in the energy sector was conducted by ERGEG and CEER.¹⁶³ We now describe the procedures for dispute resolution in each partner country and try to assess their effectiveness. Data on the number and object of consumers' complaints come from NRAs' annual reports, partners' answers to the questionnaire and specific requests addressed to the energy regulators.

In **Austria**, notwithstanding the jurisdiction of normal courts, each party - including grid users, suppliers, grid operators, other natural gas companies or special interest representatives - can file complaints with Energie-Control GmbH for disputes and complaints, especially those concerning settlements for the invoicing of balancing energy, disputes about the invoicing of electricity and natural gas supplies, and grid usage fees, provided the decision does not fall within the mandate of the E-Control Commission. E-Control GmbH is to do its utmost to bring about a settlement that is acceptable to both parties within six weeks. In cases of dispute settlements concerning consumers as defined in the Consumer Protection Act, the E-Control GmbH is obligated to consult the Federal Chamber of Labor. Natural gas companies are obligated to participate in such processes and provide all of the information needed to assess the situation. Energie-Control energy may consult independent experts toward a settlement for the parties. These experts may be from the staff of E-Control GmbH. If Energie-Control energy is called upon to settle a dispute, the due date for the amount billed is postponed until the dispute is settled. Regardless, an amount corresponding to the mean of the last three invoices can be billed for immediate payment. Amounts paid in excess will be refunded including the legal interest rate from the day of collection. Energie-

¹⁶³ See ERGEG (2005a, p. 19ff.) and CEER (2005b, p. 141ff.).

Control GmbH is to write an annual report of the settlements it made independently and provide it to the Federal Ministry of the Economy and Labor, the Federal Ministry of Justice, and the Natural Gas Council.¹⁶⁴

An informal written application (by letter, fax or e-mail), briefly outlining the events in question and enclosing all relevant documentation, is sufficient to invoke the arbitration panel. Events or invoices dating back more than three years cannot be heard; neither can any matters which are the subject of pending litigation or have already been the subject of an arbitration procedure. Of the 666 procedures since the establishment of the arbitration panel, 160 took place in 2006. Most complaints were again connected with inexplicable increases in consumption or bills that consumers were unable to understand. There was a slight increase in complaints concerning connection costs arising from new or expanded installations, supplier transfers and tariff changes. There was a sharp rise in inquiries about outstanding debts, with a growing number of consumers seeking the arbitration service's assistance in rescheduling instalments.¹⁶⁵

In **Belgium** consumers can apply to the mediation service instituted at the CREG for disputes not exceeding 5000 euros.¹⁶⁶ The mediation service can also arbitrate the dispute, provided the parties agree to such procedure. Conciliation and arbitration procedures were instituted at the three regional regulators. However, their competence is limited to disputes on the access to the networks and does not extend to energy consumers' contracts.

In **Bulgaria** there are two dispute resolution procedures before SEWRC.¹⁶⁷ The first one refers to complaints of consumers against licensees, in connection with:

- a) The right of the consumer to be connected for the purpose of being supplied with electricity, heat energy or natural gas;
- b) The right of the licensee to turn off the connection and delivery to the consumer of electricity, heat energy or natural gas;
- c) The terms of supply and the quality standards offered to the consumers by the licensee.

¹⁶⁴ Sec. 10a of the Energy Regulatory Authority Act – E-RBG of 2000, as amended.

¹⁶⁵ See E-Control Annual Report 2006, p. 96.

¹⁶⁶ See sec. 27 loi relative à l'organisation du marché de l'électricité of 29 April 1999.

¹⁶⁷ See sec. 22 Law on energy and sec. 97ff. Ordinance on licencing of activities in the energy sector of June 2004.

The Commission shall pronounce its resolution on the complaint within 30 days after its filing. When the examination has found an infringement of the license terms, the Commission shall decide on imposing of compulsory administrative measures adhering to the procedures of the Energy Law. The resolutions of the Commission pertaining to this chapter shall be subject to appeal before the Supreme Administrative Court (SAC) by the procedure of the Supreme Administrative Court Act (SACA).

If the object of the dispute is different from the three mentioned above, the Commission shall assist in voluntary settlement of disputes on reception of written request from the parties for commencing of a voluntary settlement procedure. The mediator shall use all reasonable means and effort for the settlement of the dispute and, with the consent of each side, reveal information, regarded as confidential, to the other, with the aim of contributing to reaching an agreement. The mediator may propose to the sides a solution of the dispute and, with their consent, to prepare the settlement agreement, signed by them. The settlement agreement of the dispute may contain obligations for payment of production expenses, and other liabilities, related to the provisions of the license, signed contracts or normative and administrative acts.

The total number of complaints lodged with SEWRC was 874 in 2005. In the first half of 2006 the number of complaints increased to 720. The number of complaints is highest for the heat-supply sector. In the electricity sector the highest number of complaints was for meter reading and billing errors, in the gas sector for the right to be connected, in the heat-supply sector for billing errors.

In the **Czech Republic** sec. 17 (8) Energy law gives ERU the power to decide disputes arising from the failure to arrive at an agreement on the conclusion of a contract between individual licence holders and between licence holders and their customers or the failure to arrive at an agreement on essential elements of the contract, if such a contract is to be amended. In its Annual Report ERU says that in 2004 received 30 complaints, but does not give enough information to understand whether they relate to residential consumers and which problems were raised.

In **Finland** three different institutions can handle disputes for residential consumers, although none of them has specific competencies in the energy sector.¹⁶⁸ Closest to consumers are the municipal consumer advisors, with about 100.000 contacts reported

¹⁶⁸ See Konsument Europa (2005, p. 6ff.).

on a yearly basis. They also negotiate in disputes and, if negotiations fail, they are expected to give guidance about the Consumer Complaint Board handling possibility to consumers.

The Consumer Complaint Board is a neutral and independent expert body, operational since 1978, from fall 2005 under the Ministry of Justice. This ADR has the task to issue recommendations. The decisions cannot be appealed. A case, which has been handled by the board, can be taken to court, however.

The decision can recommend compensation, recommend no compensation or leave the matter unsolved. If the board recommends compensation the parties must contact each other to make practical arrangement. The parties are sent a postage-paid card, which they can return to report compliance. If the board recommends no compensation, the case is considered as closed. The board does not take cases to court or assist consumers in legal proceedings. The procedure is all written, the parties cannot be present at the section meeting, nor can the board hear witnesses.

Handling at the board is free of charge to both parties. Should the board ask for an expert statement, expenses are covered from the board's budget. The business's consent to ADR procedure is not required as is the case in many member states. If the business involved does not give its response in the issue at hand, the board can issue a one sided decision.

Considering that the Board's recommendations are followed by traders 70-77% of times, the Ministry judges it quite effective. Consumer organizations and the Consumer Agency's periodical "Kuluttajalehti" publish a list of traders that have not followed the board's recommendations.

However, less positive comments have been voiced. Lack of resources and expertise in the field of energy markets are the principal problems, as well as the power to issue binding decisions. The duration of the procedure has also been criticized. Since 1978 the board has been given new tasks and handling times are longer than is tolerable. Depending on the section that is handling the case, handling times vary from 2 to 18 months. If mediation is successful the handling time is considerably shorter than in other cases.

The Consumer Agency's mission is to protect and strengthen consumers' position in society. The Consumer Ombudsman serves as the Director General of the Consumer

Agency. The main tasks of the Agency are the dissemination of information, the filing of petitions in the Market Court and assistance to consumers in legal proceedings. In 2004 The Energy Market Authority has issued several decisions in which it found that electricity transmission companies had collected charges that were higher than the Electricity Market Act allows. The Consumer Ombudsman assisted a consumer in a case to determine whether such companies must refund excess charges to customers. The Espoo District Court rejected the suit. The case is now being considered by the Helsinki Court of Appeal.

In **Greece** there are different dispute settlement procedures between customers and suppliers, not specialized for the electricity or gas sector. The standard process for the customer is to first try to solve the problem with the energy supply company. If no resolution is reached then there are several out of court options for dispute settlement through various authorities. The independent Authority of the Consumer Ombudsman has recently been established by law and deals with disputes between consumers and suppliers. When no settlement is achieved, the ultimate action of the Authority is to publish the case. There is also the authority of the Greek Ombudsman who is restricted to disputes between Public companies or organizations and individuals or companies. The authority investigates the cases with the cooperation of the public companies and may publish a conclusion report that is also sent to the corresponding Ministry and company. The company should respond to the conclusion report and its proposals. In Greece there is also a special Body for Consumer Protection of the Public Service Companies (established by the Law of Consumer protection) who puts forward proposals and recommendations to the public service companies, for the improvement of their services, on aggregated consumer complaints. The Minister of Commerce may impose a penalty to public service companies, after the proposal of the Body, in case the public service company refuses to provide explanations or information asked by the Body. The Regulatory Authority of Energy (RAE), although has no legal authority for imposing measures of economic compensation to consumers, encourages consumers to report their complaints to RAE in order to observe the market complications and take all necessary measures pertaining to the observation of rules of competition and the protection of the consumers in the energy market. RAE may impose penalties to the companies, in case they violate the existing legal framework. Answering a specific

request we made, RAE reported that in the period 2004-2006 only 19 complaints from electricity households and 16 from gas households were registered. These numbers refer to written complaints only. The Greek regulator mentioned various objects of the complaints, e.g. electricity interruptions without notification, refusal of connection and erroneous billing. However, it did not give us any information on the outcome of the disputes.

In the gas sector, the Gas Law 2364 allows for the establishment of a special settlement Body, recommended by RAE, which is concerned only with metering disputes. The final option for the energy consumer is to appeal to the court.¹⁶⁹

In **Italy** there is the possibility to apply for the conciliation procedure before the chambers of commerce, but the vast majority of complaints from energy consumers is addressed to the sectoral regulator. Aeg has been charged by law with the task of evaluating complaints about electricity and gas service and managing out-of-court disputes solution procedures. The authority evaluates a complaint only after the customer has made an attempt to resolve the problem with the supplier. The authority won't evaluate disputes which are not addressing service supply or disputes concerning liability issues. When a complaint is found to be justified, the Authority may make an attempt to persuade the utility to comply (moral persuasion, informal procedure) or issue an order to comply (formal procedure). The Informal approach usually leads to the solution of the case. If an order to comply is issued and the utility does not take the expected measures, the Authority has the power to fine the utility. However, the regulatory authority may fine the utility also in the cases where an investigation proves that a provision issued by the regulator was violated.

The total number of complaints addressed to Aeg has been increasing constantly in the last years. From 221 in 1999-2000 it raised to 1.686 in 2005-2006. While traditionally the largest number of complaints concerned the electricity sector, in the period 2005-2006 there was an increase of 103% of complaints in the gas sector. In the same period half of the complaints in the electricity sector was about interruptions and billing, while in the gas sector 40% concerned connection, 18% contractual issues and quality of supply.

¹⁶⁹ See ERGEG (2005a, p. 22).

In **Lithuania** three authorities have powers in the field of consumers' dispute resolution. First, the National Council for Consumer Protection under the Ministry of Justice holds a preliminary extra-judicial hearing of complaints by customers concerning the application of unfair conditions on the sale or service agreements. Second, the State Energy Inspectorate holds a preliminary extra-judicial hearing of complaints concerning the malfunctioning of energy facilities and breakdowns of equipment and metering instruments, breaches of the requirements of maintenance, energy quality, accounting of and payment for energy, accidents, interruption, suspension or restriction of energy supply. Third, the National Control Commission for Prices and Energy (NCC) holds a preliminary extra-judicial hearing of complaints concerning acts or omissions of energy enterprises in supply, distribution, transmission, storing of energy, failure to grant them a right to use networks and systems, connection, balancing of energy supply flows, application of prices and tariffs.

Pursuant to the Preliminary Extrajudicial Procedure for Examination of Complaints, approved by the Commission, five disputes were investigated in 2004. The Commission in its work accorded special attention to the fact that complaints examined in the pre-trial procedure and decisions adopted thereof should be lawful and justified, i.e. that the decision taken by the Commission will not be followed by the litigation of the complainants in the court. Quite a number of residents apply to the Commission with various issues concerning heat transmission. In 2004, a pre-trial complaint of a resident from a block of flats in Ukmerge was examined. The Commission, having evaluated the identified circumstances and the documents submitted, and after hearing both parties to the dispute, obligated the heat utility to recalculate the charges to all residents of the house for consumed heat according to the procedure approved by the regional municipality.¹⁷⁰

The State Energy Inspectorate reported that during 2005 506 claims were collected: 283 relative to electricity, 19 relative to gas and 204 relative to heat. The main subjects of the claims in the field of electricity were illegal connection to electric networks, illegal suspension of electricity supply and consumption of electricity without metering devices. In the field of gas the main subjects of the claims centered around gas supply

¹⁷⁰ See NCC Annual Report 2004.

agreements, gas accounting and payment for the gas consumed. The Inspectorate did not give any information about the outcome of the complaints.

According to the Lithuanian partner, ADR procedures are still inadequate in the energy sector. It is suggested that converting the recommendation 98/257/EC in a binding directive could force the State to enact more effective measures. Another proposal is to follow the Canadian example and to give each consumer the right to hire an expert that should assist him in the dispute against an energy company. The costs of this procedure should be included in energy tariffs.

In the **Slovak Republic** within surveillance activities URSO ensured the settlement of initiations and complaints that were delivered to the Office by citizens, private businesses and state authorities. The most frequent problems were associated with charging the prices for supply of heat, electricity, gas and water, and with the reading of the consumed amounts of energy made at the end of an invoicing period. In addition, there were the problems related to the allocation of costs for supply of heat and hot domestic water, which are not subject to regulation since the end of the year 1997. As regards the settlement of initiations and complaints a positive role was played by regional offices, which were increasingly contacted by citizens submitting their complaints about energy suppliers, or building management companies. Some of those complaints were settled on site - by providing consultation. In 2004 all the 31 complaints and the 124 initiations received were settled.

This survey shows that various problems must be solved to enhance the effectiveness of dispute resolution procedures in the energy markets. While in most cases NRAs are able to exert pressure on the firms to settle the controversy, there isn't any proof that residential consumers are adequately informed about these procedures. Moreover, the experiences of Finland and Lithuania, that rely on general consumer body without direct knowledge of energy markets, advise against this solution. These findings are confirmed by Eurobarometer surveys on satisfaction with services of general interest. In the electricity and gas sectors the number of complaints increased between 2000 and 2004. Moreover, 41% of electricity and gas users thought their complaints were dealt with badly.¹⁷¹

¹⁷¹ Special Eurobarometer 219 – *Consumers' opinions on services of general interest – Summary Report*, p. 46f.

The table below summarizes information on energy consumers' complaints for each partner country. We also report available data on complaints from other Member States.

Table 9.1 - Energy Consumers' complaints 2004-2006¹⁷²

Country	Electricity	Gas	Most frequent object
Austria	160 (Oct.2005-Sept.2006)		billing errors, connection costs, instalment payments
Belgium	N.A.	N.A.	
Bulgaria	398	20	Billing errors, disconnections
Czech Rep.	30		N.A.
Finland	N.A.	N.A.	N.A.
Greece	19	16	Damage to household premises, delayed or denied connection, billing errors, quality of supply
Italy	800	840	Interruptions, billing errors, network connection, contractual terms, quality of supply
Lithuania	283	19	Illegal connection, illegal suspension of supply, billing
Slovak Rep.	32		Tariffs, supply and business conditions
Poland	609 (2004)		Tariffs, connections, settlement of bills
UK (Energywatch)	62.075 (2005-2006)		billing
UK (Energy Supply Ombudsman)	100 (2006-2007)		Transfer procedures, billing, metering
Portugal	567 (2005)	83 (2005)	Billing, damages, safety
Hungary	899 (2005)	341 (2005)	Metering, measurement, invoicing, settlement
Latvia	69 (2005)	N.A.	Electricity supply, metering and payments
Total	1500	895	

¹⁷² The time span considered can vary according to the availability of data.

10. The role of consumer associations

This chapter discusses the role of consumer associations and the opportunities for direct participation of consumers to regulatory proceedings in partner countries. Existing evidence attests both to the benefits and the hurdles of consumers' participation and representation in the energy sector.¹⁷³ On the benefits side, enhanced involvement of consumers in regulatory decisions could increase their quality, reduce conflicts among the different categories of energy users, strengthen the democratic legitimacy of the choices made by appointed experts, reduce the influence of business and industrial interest groups. On the other hand, almost nowhere does consumers' participation, directly or through their representative organizations, reaches adequate levels. The technical complexity of the energy markets is the most important factor hampering a larger involvement of people lacking the needed expertise in the regulatory process. Moreover, it is suggested that both NRA and governments rarely support the active participation of consumers in all aspects of regulation. This is because of elitist or technocratic traditions that tend to discard the contribution from the general public and to give almost exclusive priority to technocratic judgements.

While enhancing consumers' participation in the energy sector could improve the regulatory process, it must not be forgotten that consumer associations have their own agendas. They could pursue short-term interests that do not coincide with the collective interests of their constituency, for example because in so doing they can get more funding from public or private contributors. Consumer associations can also become entrenched in the political culture of their country and develop strong linkages with political parties that influence their action. Finally, consumer associations sometimes represent only a fraction of consumers and not the majority of them. For all these reasons, adequate mechanisms should be introduced that warrant responsiveness of consumer associations to the public's long-term interests.

Various models of consumer participation can be devised, ranging from the submission of written observations in regulatory proceedings to the creation of a consumer advocate funded by the State.¹⁷⁴ It is interesting to point out that consumers'

¹⁷³ See especially the worldwide survey of participatory models by HIRA et al. (2005).

¹⁷⁴ Seven different models of consumer participation are described by HIRA et al. (2005, p. 70f.): 1) implicit representation by NRA; 2) public hearings; 3) formal representation by appointees or delegates

involvement in regulatory activities is much more developed in the practice of competition authorities, both at a national and an international level. A number of lessons can be learnt from these experiences.¹⁷⁵ First of all, there are many forms of interaction and communication that the regulators can deploy. They range from capacity building for consumer organizations to regular consultative fora to targeted campaigns (media and multi-channel). Secondly, there are many challenges to overcome to build fruitful interaction with consumers. One of the most prominent is the difficulty of conveying the meaning of competition in a non technical form and to persuade consumers of its practical relevance. Thirdly, consistent resources should be leveraged to target communications to a diversified audience.

What follows is the description of the forms of consumer participation in the regulatory process in partner countries' experience. This theme is connected to the power of consumer associations to file legal actions against energy companies, commented upon in par. 7.3 above.

In **Austria** sec. 26 Federal Act Regulating the Tasks of the Regulatory Authorities in the Electricity Sector, as well as the Establishment of *Elektrizitäts-Control GmbH* and *Elektrizitäts-Control Kommission*, provides that an Advisory Council for Electricity shall be set up in the Federal Ministry of Economic Affairs and Labour with a view to advising the Federal Minister of Economic Affairs and Labour and the regulatory authority. However, no consumer representative is included among the members of the Council.

In **Belgium** at the federal level the general council of CREG includes consumers' representatives. The tasks of the general council are to supervise the activity of CREG's direction committee, to lay down guidelines on the implementation of energy laws and to serve as a discussion forum on the objectives and strategies of energy policy.¹⁷⁶

At the regional level, various advisory committees were set down. In the **Brussels-Capital Region** sec. 33 Ordonnance 19 July 2001 relative à l'organisation du marché de l'électricité introduced a Council of electricity and gas users. Eight members of the

on regulatory boards; 4) corporatist representation by NGOs or government-created consumer associations; 5) tort-based representation in legal proceedings; 6) public survey/research model, with the regulatory board committed to seek input from the public; 7) direct public participation, in advisory committees or negotiations with other stakeholders.

¹⁷⁵ See INTERNATIONAL COMPETITION NETWORK, *Consumer Outreach by ICN Members. A Report on Outreach Undertaken and Lessons Learned*, April 2005 (www.internationalcompetitionnetwork.org).

¹⁷⁶ See sec. 24 Loi 29 April 1999 relative à l'organisation du marché de l'électricité.

Council must be appointed as consumers' representatives. The president of the Council is appointed by the government among consumers' representatives. In the **Walloon Region** sec. 51 Décret 12 April 2001 relatif à l'organisation du marché régional de l'électricité introduced an Energy Committee with the task to advise the government and the CWAPE on the protection of the general interest in the regional electricity market and the public service obligations. Among the twenty nine members of the Committee, one is appointed as representative of residential consumers by consumer associations independent by public and professional institutions, another by environmental associations. Note that these two members have voting power, while energy companies' representatives do not have such power.

In **Bulgaria** art. 14 Law on energy provides that SEWRC conducts public discussions with interested parties, including eligible consumers and consumer associations, when preparing its decisions. However, the NRA is said to be generally unresponsive to the questions of consumer associations and even distrustful of them.

In the **Czech Republic** The ERO Chairman's Advisory Corps, which was set up in April 2003 and is composed of experts delegated by governmental authorities, consumer and business associations, and trade unions, contributes significantly to the Chairman's objective decision-making, in particular as regards the strategic issues of regulation. In 2005 a Memorandum of Understanding was signed between the Consumer Defence Association and the Office for the Protection of Competition. Its aim is to promote cooperation both with regard to the notification of infringements and to proposals for improvements of the regulatory framework.

In **Finland** and **Greece** no specific consumers' participation rights were provided by energy laws. The Finnish partner says that her consumer association has good relationships with EMA, but there seems to be no influence of consumer association on the energy industry.

In **Italy** AeeG maintains working relationships with consumers' associations. Sec. 2(23) law no. 481/95 provides that AeeG holds periodic public hearings with the participation of consumer associations, associations for environment protection, trade unions, business associations.¹⁷⁷ Sec. 2(12)(m) law no. 481/95 gives consumer

¹⁷⁷ According to the implementing regulations (AeeG dec. n. 33/03), the hearings must be held at least once a year. Special hearings can also be organized on specific themes following the request of representative associations.

association the right to send Aeeg complaints, appeals and reports as to respect for standards of quality and tariffs by the service operators. There is also the right of consumer associations to participate to regulatory proceedings.¹⁷⁸ However, we do not have data on their effective participation.

In October 2001 it entered into a protocol of understanding with the National Council of Consumers and Users (CNCU) aimed at developing ways of keeping gas and electricity customers informed, especially with regard to market liberalization. The Protocol of Understanding, in addition to confirming the Authority's commitment to dialogue with the consumers' associations, calls for a number of new initiatives. These include information campaigns geared toward consumers and associations that work in close contact with the public, ways of using to best advantage the associations' monitoring activities in the electricity and gas sectors, and the possibility to attempt out-of-court conflict resolution. With specific reference to this latter issue, in 2003 Aeeg entered into a new protocol with Unioncamere aimed at developing extra-judicial dispute resolution procedures. Initiatives by consumers' associations in the field of dispute resolution have also been funded in 2007.

One of the aims specified in the protocol was to make sure consumers' associations were equipped to provide effective, thorough support and information to all consumers who seek their help in person or by phone. So many people were interested in this sort of training that the course had to be organized in stages, in a "top-down" configuration. Thus, the first stage was addressed to consumer association staffers who would then pass on the material learned to all other interested parties, through the organization of local training sessions. This project bears witness to the Authority's growing concern for consumers' associations, which it involves as extensively as possible in the consultation process, the evaluation of proposals and measures affecting consumers' rights, the promotion of initiatives entailing study, research and dialogue into consumer problems, and informational campaigns. The Authority is also making a greater effort than ever to profit from the associations' experience in their individual sectors. In early 2004, the Authority and the CNCU looked into the development of an ongoing e-learning programme that would keep operators up-to-date and enhance interaction between the Authority and the consumers' associations on the issue of information and

¹⁷⁸ See the presidential decree 9 May 2001, no. 244.

training. In the first year of activity the participation of 500 members of consumer associations was planned.

With regard to the direct involvement of consumers' representatives in the regulatory institutions, a proposal was advanced to reserve to the Italian Single Buyer the role of supplier of last resort. This new task should be supported by a new system of governance: a surveillance board with the participation of consumers' representatives would have the power to verify that the strategies of the Single Buyer do not clash with their interests.¹⁷⁹

In **Lithuania** consumer associations can participate in regulatory public hearings. From time to time they are even invited to take part. But the NCC does not pay attention to their arguments. In recent times the Lithuanian National Consumer Federation succeeded in forcing the NRA to defend consumers' interests. It was also able to persuade the legislator to introduce changes in consumer protection statutes.

In the **Slovak Republic** sec. 15 Act no. 276/2001 on Regulation in Network Industries provides that URSO can decide to open some proceedings to the public on its own initiative or at request of other participants. However, no specific reference to consumer associations is made. The Association of Slovak Consumers is regularly supplied with all the relevant information from the Office. It participates in the decision making procedure and about half of its suggestions are accepted by the Office.

The survey proposed above shows that consumers' participation in the energy regulatory processes is generally meager and could be greatly enhanced. Partners in Bulgaria, Czech Republic, Lithuania and Slovak Republic report difficulties in obtaining information by NRAs. The direct involvement of consumers' representatives in the boards of regulatory institutions would help to overcome resistance to liberalization processes in the general public. More generally, consistent resources should be invested to spread information about the energy markets and increase awareness of their mechanisms. Enhanced participation should also be fostered through ICT technologies and the direct involvement of NRAs in the e-government programs of the European Union.¹⁸⁰

¹⁷⁹ See the consultation document on the liberalization of the retail market of 28 December 2006.

¹⁸⁰ See, e.g., the communication of the European Commission on *i2010 eGovernment Action Plan: Accelerating eGovernment in Europe for the Benefit of All*, COM (2006) 173 fin., 12 April 2006. Useful suggestions can be drawn from the American initiatives on e-rulemaking: see the materials at www.regulations.gov/RuleMaking.cfm, <http://www.ksg.harvard.edu/m-rcbg/rpp/erulemaking/home.htm>.

11. Final recommendations

The general conclusion of the report is that, with few exceptions, most partner countries were not ready to take up the challenges stemming from the liberalization of retail energy markets. Faced with the pressing need to protect residential consumers, they tried to preserve the controls on prices and on other aspects of the supplier-customer relationship. However, they did not pave the way for a smooth transition to competition. On the contrary, some protective measures were ineffective or hindered entry by new suppliers.

We suggest that much work has to be done to put in place the institutional infrastructure that will allow the benefits of liberalization to be fairly distributed to all categories of final customers. The consumer protection measures included in the second electricity and gas directives do not seem to adequately support the development of a workable competition. For each problem discussed in this report we now propose a few recommendations aimed at improving the workings of retail markets. Depending on the type of problem, the institution better positioned to find effective solutions can be located at the national or the European level. Therefore, our recommendations can be addressed to the European Commission, to supranational organizations like ERGEG and CEER or to the NRAs. We also suggest that an ample variety of regulatory tools be employed, including mandatory rules, default rules, soft law and self-regulation schemes.

11.1 Search costs and switching costs

The reduction of both types of costs is perhaps the most important task European and national regulators should focus on. The low switching rates documented in most partner countries show that consumers find difficulties in exercising their power to choose. At the same time, energy companies try to make it more costly for consumers to compare alternative offers. To provide effective answers to such issues, we make the following recommendations:

- Recommendation 1

NRAs should adopt a code of commercial practice dealing with the pre-contractual phase. The code should enhance the comparability of offers and discourage energy companies from creating unnecessary complexity in their offers. Belgium and Italy provide useful examples of such codes.

- Recommendation 2

NRAs should sponsor a voluntary code of practice for advertising and marketing activities. It should specify the general principles laid down in the unfair commercial practice directive. Its main objective would be to help NRAs monitoring the behaviour of energy companies.

- Recommendation 3

The European Commission or ERGEG should draft guidelines on the legitimacy of practices widely used in the energy sector like fidelity programs, rebates and tying clauses. Because the validity of such practices depends on complex assessments that must balance various factors, it could be useful to set up a uniform legal framework at the European level. This measure could be justified on two counts: first, it avoids replicating the same assessment in each national regulatory system; second, it avoids the risk of contrasting judgements at national level that could hinder the development of the Internal Energy Market.

11.2 Econometric analysis of residential markets regulation

Econometric evidence tends to confirm that residential customers reaped the benefits of liberalization in those countries where full market opening has already been achieved. On the other hand, partial liberalization tends to thwart residential consumers, both in relative terms (with respect to the industrial customers located in the same country), and in absolute terms (with respect to the residential customers of the countries in which residential and industrial customers receive the same treatment).

Although the full market opening of 2007 should induce a homogenization between industrial and residential customers and mitigate the bias against residential customers, a number of persistent problems must be addressed.

- Recommendation 4

High concentration levels in the upstream and downstream markets soften the price-reduction effects of the liberalization process. Therefore, more aggressive actions should be taken in order to enhance competition in electricity and gas markets. In particular, a strong supervision (either by sectoral Authorities or Antitrust authorities) on anticompetitive conducts, predatory pricing, and collusive behaviour by the key players in the retail market is strongly recommended.

- Recommendation 5

The retail market design significantly shapes outcomes. Countries in which consumers are more informed and in which switching is easier have on average lower prices than those that do not display these features. Ensuring more information to consumers and a simpler and cheap switching procedure is crucial for an effective liberalization process.

- Recommendation 6

Policy measures aimed at favouring industrial customers, such as, for example, a bilateral contract market and/or merchant lines accessible only to industrial customers, damage residential customers. It is likely that, under such circumstances, the supply side in the electricity market shifts its revenue from the industrial to the residential customers, thus damaging the latter. It is crucial to understand that industrial policy measures tend to thwart residential customers. On the policy side, this trade-off has to be evaluated, and a complete welfare analysis, which includes also customers, has to be performed prior to any industrial policy decisions.

11.3 Energy consumers' contracts

Regulation of contractual terms in residential energy markets should balance the need to protect consumers with that of fostering competition. It is submitted that, at least for the most important aspects of the contractual relationship, ex-ante regulation is to be preferred to the ex-post judicial control provided by the unfair terms directive. We make the following recommendations:

- Recommendation 7

It would be useful to develop a model standard contract for electricity and gas supply at the European level. Industry associations could be charged with this task under the supervision of the European Commission or ERGEG. Alternatively, the model contract could be inserted in the forthcoming Charter of electricity and gas customers' rights. The model contract could be applied on a voluntary basis in Member States, but it could also become the reference point for regulators and judges. To encourage its adoption, the model contract should escape additional public scrutiny at the national level.

○ Recommendation 8

Residential consumers should have the right to terminate the contract at any moment. Allowing energy companies to apply restrictive conditions to consumers' withdrawal risks increasing switching costs. Moreover, there isn't any convincing evidence that energy companies are not able to bear the risk of early termination.

○ Recommendation 9

NRAs should draw guidelines about the procedures to be followed for the disconnection of those consumers who cannot afford to pay their bills. The most detailed provisions on this topic are provided by the Belgian and Finnish statutory rules. Useful examples are also provided by the guidelines for preventing debt and disconnection published by Ofgem in January 2003 and the industry-wide safety net procedure for vulnerable consumers developed by the British Energy Retail association in 2004.

○ Recommendation 10

As far as unilateral modifications by energy companies are concerned, three principles should apply. Firstly, unilateral modifications should be restricted to the price element of the contract. Because of the volatility of energy prices, it is reasonable to give the supplier the flexibility to adjust its offers to rapidly changing market conditions. Secondly, enough information should be given to the consumer to enable him to understand the reasons of the change and decide whether to search for better offers. Thirdly, the supplier's right to modify the contract to its advantage when market conditions are unfavourable should be balanced by a symmetrical consumer's right to a price cut when market conditions allow suppliers to reduce procurement costs.

11.4 Quality of supply

The report shows that quality regulation in partner countries is far from uniform. Different quality standards and measurement protocols make it difficult to assess whether liberalization pushed energy companies to improve their performance or had negative effects on quality. We suggest that the following three recommendations could ease the convergence toward common models:

- Recommendation 11

The European Commission should employ the power included in art. 28 second electricity and gas directives with reference to high levels of public service and submit to the European Parliament and the Council a proposal aimed at extending the competencies of NRA to quality regulation.

- Recommendation 12

The implementation of incentive systems for improving continuity of supply should be encouraged. CEER and ERGEG should draft more detailed proposals aimed at harmonizing the measurement protocols and at developing common indicators for incentive schemes. Moreover, the forthcoming Energy Customers' Charter should include specific reference to the duty to adopt incentive schemes that promote optimal levels of quality.

- Recommendation 13

Automatic refunds to consumers in case of quality failures should be mandatory. We suggest that the Charter lists the main continuity and commercial quality standards whose breach gives the customer a right to compensation. The amount of compensation could be left to the discretion of NRAs, but it should be high enough to stimulate firms to comply with quality standards.

11.5 Dispute resolution

The report points out various problems with alternative dispute resolution procedures in the energy markets. Consumers seldom have adequate knowledge of their mechanisms. Often there isn't the possibility to obtain financial redress without

filing an action in court. Moreover, general consumer bodies lack the financial resources and the expertise needed to adequately assist energy consumers. Therefore, we make the following recommendations:

- Recommendation 14

A specialized consumer body should be created through public or self-regulatory schemes to assist energy consumers in their controversies with energy suppliers. It should have the power to award financial compensation.

- Recommendation 15

NRAs should have the task to spread information on the competencies of the dispute resolution body and make access by complaining consumers as easy as possible

11.6 Consumer representation

Various initiatives could be promoted to enhance consumer representation in regulatory proceedings. We make the following recommendations:

- Recommendation 16

Consumer representation should be guaranteed through advisory organisms or directly in the board of the NRAs. The Czech Republic and Belgium are examples of such solutions.

- Recommendation 17

The participation of consumer representatives should be enhanced both through periodic public hearings and the implementation of electronic consultation procedures.

- Recommendation 18

Training programmes, including e-learning, should be organized by NRAs to ensure consumer representatives have the skills needed to assist energy consumers and to actively participate in regulatory proceedings.

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Annex A

The questionnaire

See the project's website www.energyandconsumers.net

Annex B

Partners' answers to the questionnaire

See the project's website www.energyandconsumers.net

Annex C

Energy consumers' complaints

See the project's website www.energyandconsumers.net

Annex D

Interviews with National Energy Regulators

See the project's website www.energyandconsumers.net

Annex E

National energy laws and regulations

See the project's website www.energyandconsumers.net